Release Date 2-6-67

KERR MC GEE #1 NAVAJO SE SW 32-36N-30E Apache County

COUNTY Apache

•			m (5-1-9	14)	· · · · · ·						-
WELL NAME	err McGeo	<u>+</u> #1 Na	ıva jo				<u></u>			·	
LOCATION SES	<u>w</u>	SEC3	32 TWP	<u>36n</u>	RANGE	30E	FOOTAGE	660	FSL 2000	O' FWL TOTAL	
ELEV 7564 GE	₹	_KB 5		ات 10-19 الك			STATUSUL COMP. DATE	2-1-	57	DEPTH _	3050 PBTD 3864!
CONTRACTOR			a 37	ラ゛ 							
CASING SIZE	DEPTH	CEME	NT LIN	ER SI	ZE & DE	PTH	DRILLED	BY ROT	ARY	x	 _
10 3/4	323	200		NA			DRILLED				
8 3/4	3159	700					PRODUCT	IVE RES	ERVOIR	1/	
2 3/8	2866	 					INITIAL	, PRODUC	тіон 🚅	BOPI	0 51 BOPD
				COLINGE	. 1					97-1	I BUPD
FORMATION T	OPS	DEPTHS	1	SOURCE L. E	.L.	RE	MARKS				
Triassic		0									
Permian		573'									
Pennsylvani Mississippi		1305 3127									
Paratian		3325					<u></u>			_	
Cambrian		3690									
2<u>2</u> 											
		;									
ELECTRIC LOGS			PERFORATE	D INT	ERVALS	P	ROD. INTERV				Strat
See file #303	, Sonic G	R	2860-29	42'		28	60-2942		AMPLE D		Farm Cut
IES, Cement Bo	ond '		Tak's					1			
				`					STs Tucson		
									Ideson	2042	
REMARKS Orig	inally dr	illed	Under Per	mit 30	03. Thị	s per	mit to re-e	nter	PP. TO	PLUG _	
and test I New perfs.	-2885 2885-294	2005 . 2 (New	7-13 Per. 286	-67 \ vi 0-294:	erbal p 2) 7-1	9-67	sion to re- Work-over.	work.	PLUGGING	REP.	
same reser									COMP. RI	EPORT	x
WATER WELL AC	CEPTED BY	Υ						F	e-entry	2-2-6	<u>x</u>
BOND COF	iremen's	Ins. C	o. [IA T	SOND		BOND NO.	- 18	18 -98-1€	-528	· · · · · · · · · · · · · · · · · · ·
BOND AMT. \$ -	25,000		CANCEL	LED	12/1/9	7	DATE ORGANIZA	ATION R	EPORT _	7-14	-60
FILING RECEI			LOC. P	LAT _	X	₽—ვეა 	WELL BOOK _	×	PLAT	воок _	×
API NO02-			DATE I	SSUED	1-23	-67	DEDICAT	LIONSMV	Order	21	
PERMIT NUMBER	37	7	·						196		
			•		(over)	R	elease Da	ate	- 19-1	67

AREA 15 mi SW Red Rock

LEASE NO. Nav 14-20-0603-8823

٤.

				DRILL	STEM TEST					
NO.	FRO	м	то	RESULTS						
1	590		617,	5/8" bottom 1	nole choke. No	water cushion. Very weak blow/died 10				
2	683		695	min. laffP I.	3.1#. FSIP ZZ.8# mediately which	#,16FHH 27J# died in 5 min. Rec 10 gallons of rota				
				mud No proc	CHTGG					
3	683 683		700 700	111 hattam ha	Good blow immediately which died in 5 min. Rec IU mud. No pres 1" bottom hole choke and 120' water cushion. Fair blow immediate					
-4				which died i	n 7 min. Rec 380	O' of rotary mud and 120' water cushic				
				IFP 190#, FF	E RECORD	Z#, 1 & FHH 32U#				
NO.	FR	OM	то	RECOVERY	REMARKS					
			<u> </u>			·				
		 _								
			<u> </u>							
			ļ							
			<u> </u>	REME	DIAL HISTORY					
DATE S	TARTED -	COMPL	ETED	WORK PERFORMET)	NEW PERFORATIONS				
										
						· ·				
			· · · · · · · · · · · · · · · · · · ·							
				ADDITION	AL INFORMATION					
				<u></u>						
										
	····	···			<u></u>					
	_ 									
										

(3

O

													
	W	ELL CO			RECOMPL				WELL	LOG			
					TE TYPE (ETION Diffe				ı	7	Dry 🗍
Mell OA	ork- XX	Despei		Plug Back	Reserv		Rese	rvotr L	Oil	<u> </u>	Gas	<u> </u>	Dry LJ
				DESCRI	PTION OF	Address) LEAL						
Operator Kerr-McGee	Corpo	rati	on		ļ		Box	250, Z	\mari	110	_Tex	as	79106_
Federal, State or 1				lessor if fe	ee lease	Well Num		Field & F	Sener vojr	•			
14-20-0603	3-8823		Navaj	0	<u></u>	1		Dine	eh-Bi	-Ke	yah		
Location 660 FSL 8	- 2000	स्था	٥£			Cou	^{nty} . Apag	aho.					
Sec. TWP-Range			OT				<u>vha.</u>	-11G					
Sec. 32, 1			0E										
Date spudded			al depth re	ached	Date completed produce 2-1-67	ted, ready t	• E	levation DF, RKB, I	RT or G	r.) feet	Elevatio hd. flan	ge Dot	feet
1-22-65		2-1 P.B.T.D.	3-65		2-1-67 Single, dual			7 <u>.560'</u>	1 TE ebi	- 10 - 7	ual or tri	ple co	mpletion.
Total depth	ļ	3,050		l	Single				furnis pletio	h sepa	rate repo	rt for	esch com-
Producing interv					~ ~ ~ ~ ~	Rotary t	ools us	od (interval)	Cable	teols use	d (Int	erval)
2,860'-2,	942'		. <u></u>			0 - :			i	Date 1	nied.	. 1	
Was this well di	rectionally d	rilled? V	• •	nal surve	y made?	Was cop	y of dir	ectional aur	•07	1/21/0			
NO Type of electrics	al or other	ogs run	(check logs	filed with	the commi	salon)			i	Date	filed		
Induction										0ct	22,	_1	965
			•		CASING	RECORD		· .					
Casing (report a				r, surface		(lb./ft.)		Depth set	1 8	acks ce	ment	A	mt. pulled
Purpose		drilled			_		l		_	200			None
Surface	13 3		10 3/ 7"	/4"	- 40 ;	<u>5</u>		323 ' 159'		<u>200</u> 700			None None
Production	n 83	/ 4 "						<u> </u>	_				.,,,,,,
TUBING RECORD LINER RECORD													
Size	Depth set	1	Packer set s	- 1	•	Top		Bottom	44	Sacks	cement	S	ereen (ft.)
3 1/2 in.		ft.	None n record		None in		e ft	- IOT, FRAC	ft.	CEMEN	T SQUE	EZE	RECORD
Number per ft.				epth Inter	val	!. 		of materia		Ī		h Int	
			860-29	42		90 00	n da	ıls Gel	<u></u>	28	360-2	942	
4	Jets	4	000-25	4.6		90.0	00#	10-20	sano				
		' .				RODUCTI	ON						
Date of first p	roduction				ndicate if fic				f pumpli	ng, sho	w size &	type	of pump:)
1-27-67					1.50" I			Pump ing test	Water D	rod. đu	ring test	lon	gravity
	Hrs. tested	Cho	ke size	l .	50 bbls	1		MCF		3	bbla.	12.	1. API (Corr)
12-2-74 Tubing pressur		pressur	e Cal'te	ed rate of l	Pro- Oil		Gar		w	ater		Ga	oil ratio
Ĺ				on per 24	<u> </u>	50 bbls	. !	56.8 M	CIF	3_	bbis.	<u> </u>	227
Disposition of p													
	for fu										•		
CERTIFICATE	: I, the unde	rsigned, u	ınder the per	nalty of pe	rjury, state t	hat I am th	ie	Produ	ction	ı.En	ginee	Œ	of the
Kerr	-McGee	Corp	oratio	n	(company).	and that I	am auth	orized by sa	id compa	iny to m	ake this	report	; and that this
report was pre	pared under	my super	rvision and d	lirection as	nd that the fa	ets stated t	herein a	re true, corr	ect and	omplete 7	to the be	st of	my knowledge.
12-3-	74	·				5/	Tinka	in a	2/	en	Andı	ew.	Abarr
Date			R	ECFI	IVED	Sig	nature	<u> </u>					
1			4.0										
			D	EC U E	19/4		•						
		- 	<u> </u>				-	S'	TATE (OF AR	IZONA		
			0 8	& G CON	S. COMM.	ļ	OI	L & GAS				MMIS	SION
	211						Well	Completion	or Reco	mpletio	n Report	and V	Vell Log
	902/)			Fo	rm No.	4	File	One Co	ру		
Permit No.	2026	_					-						

and or security of

(Complete Reverse Side)

C

CANAL SAN

CONTRACTOR

1	TRANSPO	RT OIL OR GAS	E AND AUTHURIZATION	
deral, State or Indian Lease Number.	Field		heervoir	
r lessor's name if fee lease	Din	eh-BI-Keyah	Hermos	3a
14-20-0603-8823 urvey or Sec-Twp-Rge	County		State	
ec29,30,31,32 T-36N-R30E	Apa	che	AZ	
Operator				
Mountain States Petr	oleum Corp		WING THE FORM TO:	
ADDRE	SS ALL CORRES	PONDENCE CONCE	NING THIS FORM TO:	
Street	City		New Mexico 882	02
P O Bx 1936	. Roswe	<u> </u>	1 INCW PERIOD GOZ	<u> </u>
Above named operator authorizes (name of t	ransporter)			
Giant Industries	City		State	
Transporter's street address	Scotts	aleh:	AZ	
P O Bx 12999	1 Scotts	date,		
Field address P O Bx 256 (Bloomfield I	Farmir	oton. N M 874	99	·
b O BX 529 (Brodurierd i	Oil con	iensate, gas well gas.	asinghead gas	
	•			
To transport	() () % of the		oil from sa	id lease.
OTHER GAT	HERERS TRANS	PORTING FROM TH	S LEASE ARE AS FOLLOWS:	
		Product transported		
Name of gatherer				
	•	_	l	
Indicate whether or not this certificate is			<u></u>	
Chánge of Oper.	use, except as no luced from the a	he State of Arizona (ted above, and that t	il & Gas Conservation Commission have e above transporter is authorized to tran	been complied with
drilling and producing operations on this re- percentage of the allowable oil or gas prod or until cancelled by the State of Arizona	On & Gas Conser	VALUE COMBINATION		alid until further not
drilling and producing operations on this te- percentage of the allowable oil or gas prod or until cancelled by the State of Arizona (CERTIFICATE: I, the undersigned, under t	he penalty of per	rjury, state that I am	he Secretary	of
drilling and producing operations on this is percentage of the allowable oil or gas prod or until cancelled by the State of Arizona (CERTIFICATE: I, the undersigned, under the control of	he penalty of per	rjury, state that I am	he Secretary	of
drilling and producing operations on this is percentage of the allowable oil or gas prod or until cancelled by the State of Arizona (CERTIFICATE: I, the undersigned, under the content of	he penalty of per	rjury, state that I am	he Secretary	of
drilling and producing operations on this te- percentage of the allowable oil or gas prod or until cancelled by the State of Arizona (CERTIFICATE: I, the undersigned, under t	he penalty of per	rjury, state that I am	he Secretary	of this report; and that the best of my knowled
drilling and producing operations on this is percentage of the allowable oil or gas producing or until cancelled by the State of Arizona or until cancelle	he penalty of per	rjury, state that I am	m authorized by said company to make therein are true, correct and complete to the said said complete to the said said said said said said said said	of this report; and that the best of my knowled
drilling and producing operations on this repercentage of the allowable oil or gas producing or until cancelled by the State of Arizona of the cancelled by the Cancelled by the Cancelled by the State of Arizona of the Cancelled by the Cancelled by the Cancelled by the State of Arizona of the Cancelled by the Ca	he penalty of per	rjury, state that I am	m authorized by said company to make therein are true, correct and complete to the said said complete to the said said said said said said said said	of this report; and that the best of my knowled
drilling and producing operations on this repercentage of the allowable oil or gas produce or until cancelled by the State of Arizona of the cancel o	he penalty of per Corp. (cand direction and	rjury, state that I am	m authorized by said company to make therein are true, correct and complete to the said said complete to the said said said said said said said said	of this report; and that the best of my knowled
drilling and producing operations on this is percentage of the allowable oil or gas producing or until cancelled by the State of Arizona or until cancelle	he penalty of per . COYP. (cand direction and	rjury, state that I am	m authorized by said company to make therein are true, correct and complete to the said said complete to the said said said said said said said said	of this report; and that the best of my knowled
drilling and producing operations on this repercentage of the allowable oil or gas produced or until cancelled by the State of Arizona of the cancel	he penalty of per . COYP. (cand direction and	rjury, state that I am	m authorized by said company to make therein are true, correct and complete to the said said complete to the said said said said said said said said	of this report; and that the best of my knowled
drilling and producing operations on this tepercentage of the allowable oil or gas producing or until cancelled by the State of Arizona or until cancelled	he penalty of per . COYP. (cand direction and	rjury, state that I am	m authorized by said company to make therein are true, correct and complete to the said said complete to the said said said said said said said said	of this report; and that the best of my knowled

Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease File Two Copies

Form No. 8

Permit No.

	すい TRANSPC	ORT OIL OR GAS	FROM LEAS	E .	
eral, State or Indian Lease Number.	Field	-Bi-Keyah		Reservoir Hermosa	
4-20-0603-8823 Navajo vey or Sec-Twp-Rge	County	-DI-VEAUIT	i	State	
everal - T 36 N, R 30 E	Apach	e		Arizona	•
erator					
err-McGee Corporation				ODAK MO	
	City	SPONDENCE CONCE	RNING THIS P	State	
eet	Amari	110		Texas, 7	9189
ove named operator authorizes (name of the		110	· · · · · · · · · · · · · · · · · · ·	, cxus, ,	
ary-Williams Energy	•				
ansporter's street address	City			State	
70 17th St., Suite 5300 Denver				Colorado	80202
eld address	0744				
O. Box 159, Bloomfield.	NM 87413	densate, gas well gas,	casinghead gas	~~~	
	Gii, coil	activate, Ban mery Bank			
transport 10	∩%rofthe ()i1		<u> </u>	from said lease.
OTHER GATE	ERERS TRANS	PORTING FROM TH	IS LEASE ARE	AS FOLLOWS:	
ame of gatherer	% transported	nsported Product transported			
					<u></u>
	<u> </u>	<u> </u>			
		ļ			
		,			
e undersigned certifies that the rules and illing and producing operations on this lear reentage of the allowable oil or gas producinglicancelled by the State of Arizona O	regulations of ti se, except as no need from the a	he State of Arizona (ted above, and that t	Dil & Gas Consi	ervation Commission	on have been complied with
RTIFICATE: I, the undersigned, under th	o penalty of per	rivery state that I am	the	Area Manage	eror
Kerr-McGee Corporation port was prepared under my supervision as	od direction and	ompany), and that I that the facts stated	am authorized t therein are true	y said company to , correct and compl	make this report; and that lete to the best of my knowle
port was prepared under my supervision as	id direction and	THE THE THE THE		•	•
-				^ .	
0.410.400			1///		H.H. Rice
8/18/92 Date			Signature	ace_	HARL RICE
Date					
ate approved: 8-21-98)				
ate approved: 0 STATE OF ARIZON					

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease

File Two Copies

Form No. 5

GAS-OIL RATIO TEST REPORTS

2011/25/2019

Filed under Oil-Gas Ratio Tests, Dineh-bi-Keyah Field in cabinet in office of Enforcement Director

n

SUNDRY NOTICES AND REPORTS ON WELLS

Make or ohe	retor Kerr-M	cGee Corpora	tion	
O'F MEIT		OTHER \square	(Specify)	
Well Hame	Navajo Well No.	<u>l·</u>		
Location	660' FSL and 200	O' FWl of		
32 Sec		Rge	30E County Apa	che Arlzona.
Federal, Stat	e or Indian Lease Number, er les	or's name if fee lease_	14-20-0603-8823	Navajo
Field or Pool	Name Dineh-Bi-Ke	yah		
. Check Appn	opriate Box to Indicate Nature of	Notice, Report, or Oth	er Date	
	NOTICE OF INTENTION	TO:	SUBSEQUENT 1	REPORT OF:
TEST WATER FRACTURE T SHOOT OR AG BEPAIR WELL	CIDIZE DIRECTION	E CASING	FRACTURE TREATMENT X SHOOTING OR ACIDIZING X	MONTHLY PROGRESS REPAIRING WELL ALTERING CASING ABANDONMENT
(OTHER)			(OTHER) Reperforating	X
			(NOTE: Report results of multiple or Recompletion Rep	completion on Well Completion ort and Log form.)
DESCRIBE I	PROPOSED OR COMPLETED OP proposed work. If well is direction to this work.)	ERATIONS (Clearly stomally drilled, give sub	ate all pertinent details, and give pertines surface locations and measured and true	nt dates, including estimated date of vertical depths for all markers and
-18-74 -19-74 -20-74 -21-74	gallons of lease rate 36 BPM. Ma 550 psi. Cleaned out sand	crude and eximum press	942' with 2 HPF. Fra 90,000# of 10-20 sand ure 3,000 pai. Insta ' to 3,037 with sand Started pumping bake	I. Average injecti ant shut down press pump.
-1-74 -2-74	Recovering load Well tested 250	oil. All l BOPD & 3 BW	oad oil recovered. PD, GOR 227.	
				RECEIVED
		•		DEC 0 9 19/4
				0 & G CONS. COMM.
8. I hereby cer	andrew Abarr			
. 2			Production Engine	er 12-3-74
Signed P	ardiew Aball Cypy		OIL & GAS CONSERV	ARIZONA /ATION COMMISSION di Reports On Wells to Copies

\sqrt{h}	31	MURI MOTICES A	WD KELOKIZ	ON WELLS		
	err-McGee Cor	oration				
OIL WELL X	GAS WELL	OTHER [(Specify)			
Well HameNS	vajo No.1	-				
Location 660	FSL and 2000	TWL of				
Sec. 32	Twp 36N	Ren.	30K	County	Apache	. Arlzona.
. Federal, State or Indian	-		14-20-06		Navajo	_, M12011d.
					•	
Field or Pool Name	Dineh-Bi-Keya	h				
. Check Appropriate Box	t to Indicate Nature of	Notice, Report, or Oth	er Data			
NO	TICE OF INTENTION	70:		SHRSTOIR	NT REPORT OF:	
TEST WATER SHUT-OI FRACTURE TREAT SHOOT OR ACIDIEE REPAIR WELL. (OTHER). Re-			1		MONTHLY PROGRESS REPAIRING WELL ALTERING CASING ABANDONMENT	
			(NOTE:	Report results of mui or Recompletion	itiple completion on Well Cor Report and Log form.)	npletion
Pull rods, pu existing perf	mp: and tubing orations (2,86 rom 2,885 -2,5	Clean out to 0'-2,942') with 2 HP	o 3,050° Ri n 5,000 gai	KB with sand llons of 74% re with 90,00	O gallons of	ated date o

Retimated starting date: October 28, 1974

Date 10-21-74

RECEIVED

OCT 16 19/4

O & G CONS. COMM.

Dist. Prod. Supt.

10-14-74

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION Sundry Notices and Reports On Wells Fil. Two Copies

Form No. 25

Permit No.

WARRED



ARIZONA SECONDARY RECOVERY PROGRAM PROPOSED

The Arizona Oil and Gas Conservation Commission will hold a hearing September 19 to consider an application by Kerr-McGee Corp for a secondary recovery program using injection of salt water into the Hermosa formation in Dineh Bi Keyah field, apache County. The location for the project is in 29 through 33-36n-30e, 5 and 6-40 Apache County. The location for the project is in 29 through 33-36n-30e, 5 and 6-40 Apache County. The location for the project is in 29 through 33-36n-30e, 5 and 6-40 Apache County. The location for the project is in 29 through 33-36n-30e, 5 and 6-40 Apache County. The location bbls of water. The hearing begins of oil, 1.8 billion cu ft of gas and 2.4 million bbls of water. The hearing begins at 10:00 am at the Oil and Gas Conservation Commission office, 8686 North Central Avenue, Suite 106, Phoenix.

0

4-645 (January 1949)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF MINES PETROLEUM AND NATURAL GAS BRANCH

Laboratory sample No. PC-67-88

Laboratory	Laramie, Wyoming		Laboratory sample No. PC-67-88
Purpose for	obtaining sample analysi	8	
INFORMA'	TION TO BE FORWARDE	ED WITH EA	CH SAMPLE OF WATER, OIL, OR GAS
			sing this sheet. Please write clearly or print.
Kind of sample (water	r, oil, or gas)		Marks on sample container
Field Dineh Bi	IKeyah	Farm or leas	se No. 14-20-0603-8823
Well No. Navajo	in the SE1/4 SW1	/4 of Sec	tion 32 Township 36N
Range 30E	County Apacl	he	State Arizona
Operator Kei	rr McGee		
			Date 7-13-67
Address Box 33	95. University Station	Rej	presentingU_S_Bureau_of_Mines
Sample obtained from	e, Wyoming 82070 m (lead line, separator, flow tank	, etc.)	well head
Date of completion of	f well Feb. 15, 1967	Ele	evation of well 7,573 KB
Name of productive from which sample is	zone s produced Tertiary Syeni	te igneous	sill Sand Shale Lime
Formation name	Tertiary (Textiary	intrusion	into the Pennsylvanian)
Depths: Top of forr	mation1,305	Bo	ottom of formation 3,127
			ottom of producing zone2,885
Total dept	h drilled	P	resent depth
Well production:	Initial	Present	Casing record:
Oil, barrels pe	er day <u>634</u>		7" @ 3.159 ft. w/700 sacks
Water, barrels			
Gas, cubic feet	t		***************************************
Pressures Tu	servoir		Method of production xedda pump
Remarks:			

RECEIVED

MAY 1 0 1974

INT.DUP.,D.C. 89289

377

O & G CONS. COMM.

2.02.02**020**

CRUDE PETROLEUM ANALYSIS

Bureau of Mines Laramie Sample <u>PC-67-88</u>

IDENTIFICATION

Dineh Bi Keyah field Tertiary Syenite (an igneous sill)* 2,860-2,885 feet

Arizona Apache County SE1/4SW1/4, sec 32, T 36 N, R 30 E

GENERAL CHARACTERISTICS

Gravity, o API, 41.7 Gravity, specific, 0.817 Sulfur, percent, _____19 Viscosity, Saybolt Universal at 100°F, 35 sec; at 77°F, 37 sec. Pour point, ° F., below 5 Color, ..green... Nitrogen, percent, 0,031

DISTILLATION, BUREAU OF MINES ROUTINE METHOD

STAGE 1—Distillation at atmospheric pressure, ...760 mm. Hg First drop, 82 ° F.

Fraction No.	Cut temp. F.	Percent	Sum, percent	Sp. gr., 60/60° F.	° API, 60° F.	. C. I.	Refractive index, np at 20° C.	Specific dispersion	S. U. visc., 100° F.	test, °F.
1 2 3 4 5 6 8	482	3.2 3.8 6.6 6.6 5.9 6.6 4.5 6.5 5.4 6.8	3.2 7.0 13.6 20.2 26.1 32.7 37.2 43.7 49.1 55.9	0.642 .679 .720 .747 .766 .781 .792 .807 .821	88.9 76.9 65.0 57.9 53.2 49.7 47.2 43.8 40.9	12 21 25 27 27 26 27 29 30	1.38214 1.39996 1.31512 1.42670 1.43523 1.44136 1.44801 1.45528 1,46307	146.0 143.3		
10		<u></u>		5 0 Di-	-	inved at 40 i	mm. Hg	_		

STAGE 2-Distillation continued at 40 150.5 39. 1.47145 35.4 848 .58.2. 392 43 1,47400 145.7 <u> 34.4.</u> 63.3 <u>.853</u> 5.1 437 53. 150,4 1,47937

25. 40 69.2 <u>33</u> . .863 32.5 5.9 60. 482 _7.6. 35 30.4 .874. 73.9... 4.7... 90 527 120 37... 28.4 .885 78.4... 572 4.5 21.8 .923. 18.7 97.1

Carbon residue, Conradson: Residuum, 4.7 percent; crude, 1.0 percent.

APPROXIMATE SUMMARY

	Percent	Sp. gr.	° API	Viscosity
	1	0.690	73.6	
Light gasoline	37.2	.741	59.5	
Total gasoline and naphtha	11.9	.813	42.6	
			36.2	
Kerosine distillate	9.5	,860-,880	33.0-29.3	50-10
		.880891	29.3-27.3	· 100-20
Nonviscous lubricating distillate				Above 20
Medium lubricating distillate	18.7	.923	21.8	ļ
Viscous lubricating distillate Residuum Distillation luss	2.9	.]		<u>!</u>
Distillation loss				

^{*}A Tertiary intrusion into Pennsylvanian rock.

SALES !

TEFTELLER, INC. RESERVOIR ENGINEERING DATA Midland, Texas

Well NAVAJO NO. 1

Page 3 10

DINEH BI KEYAH Field

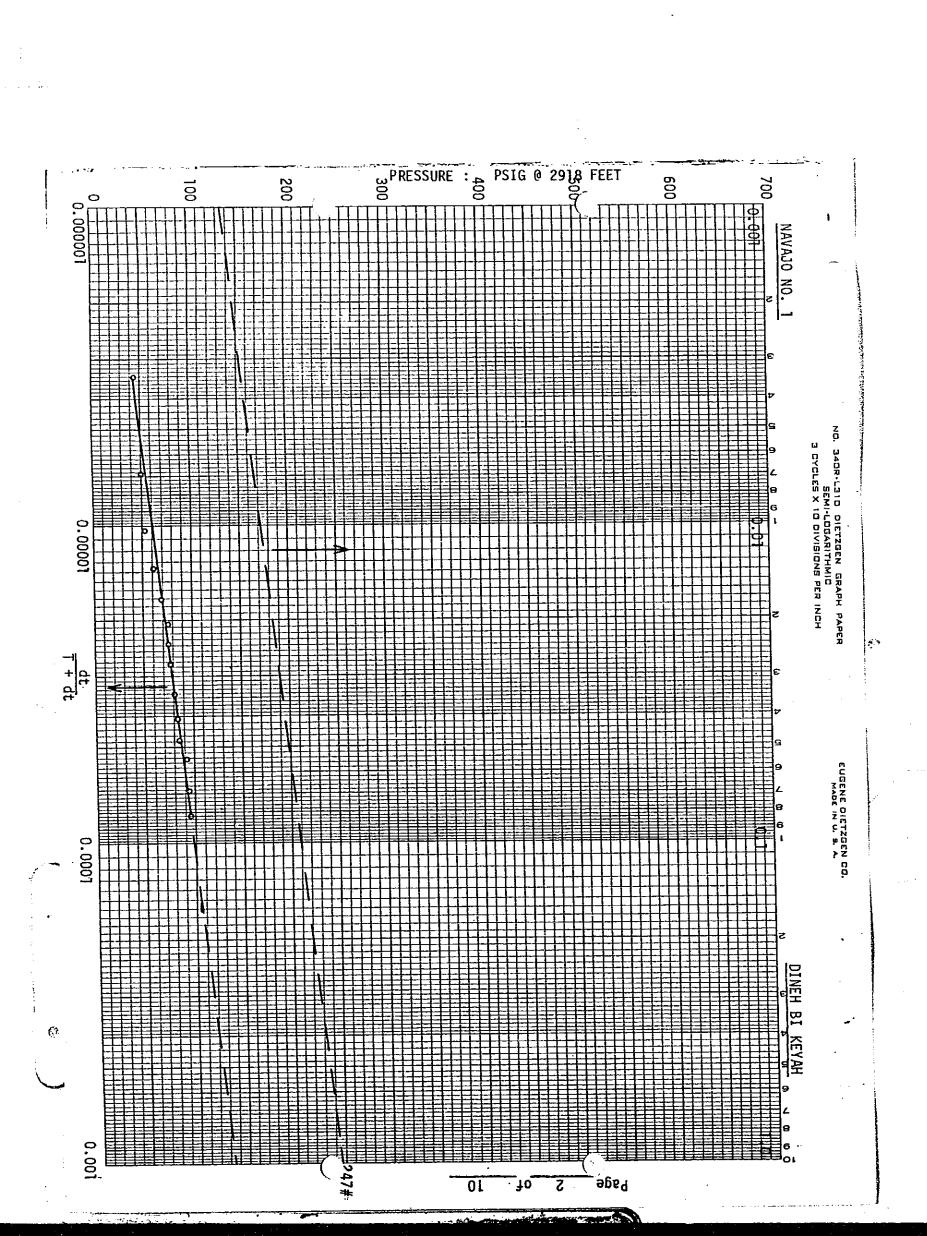
File 2-4719-FL

DIMENSIONLESS TIME DATA

1972 Date	Elapsed Time Hours	T + dt	dt T + dt	Pressure 0 29181 Psig
7-19-72	0.5	146,562.5	0.00000341	44
	1.0	146,563.0	0.00000682	50
H H	1.5 2.0 2.5	146,563.5 146,564.0 146,564.5	0.00001023 0.00001365 0.00001706	53 61 69
11 11 61	3.0 3.5	146,565.0 146,565.5	0.00002047 0.00002388	74 76
. II	4.0	146,566.0	0.00002729	76
	5.0	146,567.0	0.00003411	81
	6.0	146,568.0	0.00004094	83
n	7.0	146,569.0	0.00004776	84
n	8.0	146,570.0	0.00005458	92
	10.0	146,572.0	0.00006823	93
	12.0	146,574.0	0.00008187	94

Cumm. Rate T

842,730 Bbls Fluid 138 B/D 146,562 hours



O

الله ت ت

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

NAVAJO NO.

Field

We]]

또	
81	

I	=
l	S
ļ	-
ł	닿
ŧ	=

File

2-4719-FL

00228840078078078078078080808080808080808080	Elapsed Time Hrs.Min.
888888888888899999999999999999999999999	Joints To Fluid
2815 2831 2831 2831 2831 2800 2784 2784 2784 2784 2784 2788 2788 2768	Feet Fluid
103 87 103 118 134 134 134 134 136 150	Feet Of Fluid To Mid Pay
55.55.44.44.45.35.55.55.55.55.55.55.55.55.55.55.55.55	Oil Column Psi @ .350/Ft.
	Gas Column Psi @ .005/Ft.
226822277541960 0	Casing Pressure Psig
50 44 50 55 55 55 55 55 55 55 55 55 55 55 55	8HP 2916

Pumping Shut in

Status of Well

31.28 .350 psi per ft. .005 psi per ft. RECEIVED AUG 0 9 1972

Average Tubing Length Oil Gradient Gas Gradient

Total Oil Production to test date Total Water Production to test date

O & G CONS. COMM.

823,929 Bb1s 18,801 Bb1s

Mades.

TO TOWN

Oil:Rate Water Rate

135 BOPD 3 BWPD

317

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Well NAVAJO NO. 1

Page___ 12

Field :

DINEH BI KEYAH

File

DIMENSIONLESS TIME DATA

1973 Date	Elapsed Time Hours	T + dt	dt T + dt	Pressure @ 2918' Psig
7-12	0.5	183,698.5	0.0000027	50
II	1.0	183,699.0	0.0000054	48
11	1.5	183,699.5	0.0000081	50
11	2.0	183,700.0	0.0000108	. 51
11	2.5	183,700.5	0.0000136	53
11	3.0	183,701.0	0.0000163	54
,II	3.5	183.701.5	0.0000190	56
n .	4.0	183,702.0	0.0000217	55
II .	5.0	183,703.0	0.0000272	58
11	6.0	183,704.0	0.0000326	60
н ,	7.0	183,705.0	0.0000320	61
11	8.0	183,706.0		
1)	The state of the s		0.0000435	63
11	10.0	183,708.0	0.0000544	<u>66</u>
	12.0	183,710.0	0.0000653	67
	•			

Cumm.

887,875 Bbls Fluid 116 B/D 183,698

c₁₅ + s. -28 C13. Cas Chromatography Data

Significant Compound Ratios

of C1/C2 A/D2 D1/D2 C1/D2 5.50 2.23 1.83 5.33 Percent Gasoline 11.12 Type Sample Wellhead Pennsylvanian 2860'-2885' Greenish Brown Color Producing Interval Reservoir Age Dineh Bi Keyah (Cove Anti-cline) Field Sec. 32, Twp. 35N, Rge. 30 East Apache County, Arizona Location Well Name Kerr-McGee EPR Sample Number 53981

(max.max)

TAE

Summary of Gas Chromatographic, Carbon I

31

of the charles of the definition of the contract of the contra

Ģ

oic and High Mass Spectrometric Analyses

٠			TZPN	0.82
		~	DBTH	7.3% ,7.8% 2.3% 11.1% 22.7% 17.2% 2.2% 2.7% 2.6% 7.8% 0.8%
٠		raction	втн	2.6%
	tion	atic F	CHRY	2.7%
	c Frac	n Arom	PYR	2.2%
	Aromati	roups	PHEN	17.2%
at a	on of	9 puno	нано	22.7%
ical Da	Gross Composition of Aromatic Fraction	ic Comp	INDA INDE NAP THPH DHPH PHEN PYR CHRY BIH DBTH	11.12
Analyt	ross Co	Aromat	NAP	2.3%
metric	S	ent of	INDE	7.87
Spectro		(Perc	INDA	7.3%
gh Mass			BEN	15.6%
rbon Hi			6-Ring	0.92
C15 Hydrocarbon High Mass Spectrometric Analytical Data	rion	-	5-Ring	3.1% 0.9% 15.6%
c ₁₅ +	Gross Composition of Saturate Fraction		4-Ring	6.5%
	of Satur	Naphthenes	3-Ring	31.9% 14.6% 8.8% 6.5%
	osition	Naph	Z-King	14.6%
	coss Com		1-King	31.9%
	ច	,	Farailins 1-King 2-King 3-Ring 4-Ring 5-Ring 6-Ring	34.3%
Sotope Data	13,712	ite C, t Aromatic		28.54
ISC		ite		٠

Table I

O

916

 γ^{α}

[] masses

APPENDIX A

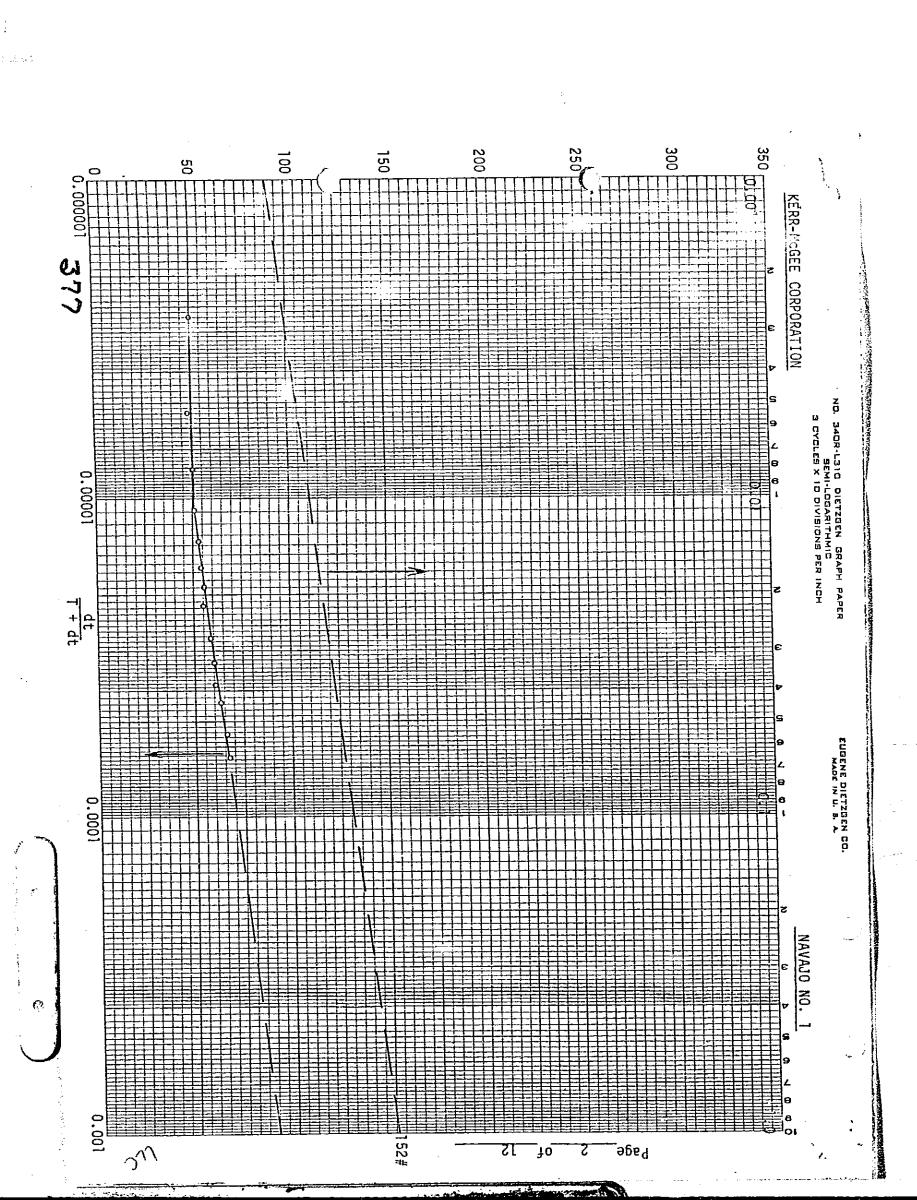
C4-C7 Hydrocarbon Gas Chromatographic Analytical Data

EPR Sample #53981 - Dinch - bi- Keysh Crude Oil.

			•		
	TOTAL	NORM		TOTAL	NORM -
•	PERCENT	PERCENT		PERCENT	PERCENT
METHANE	2.000		CHEX	0.547	5.05
ETHANE	0.031		33-DMP	າ.020	0.11
PROPANE	7.302		11-DMCP	0.674	3.60
IBUTANE	0.299	1.59	2-MHEX	0.000	0.00
NBUTANE	0.957	5.11	23-1)MP	0.388	2.07
IPENTANE	1.155	6.18	3-MHEX	0.761	4.06
NPENTANE	1.422	7.59	1C 3-DMCP	0.254	1.36
22-D4B	0.053	0.28	1T3-DMCP	0.261	1.39
CPENTANE	3.152	0.81	1T2-DMCP	0.037	0.20
23-DMB	0.123	0.66	3-FPENT	0.000	0.00
2-MP	1.209	5.45	224-TMP	0.COO	0.00
3-MP	0.716	3.82	NHEPTANE	1.855	9.90
NHEXANE	1.813	9.67	· ICS-DMCP	0.C87	0.46
MCP	0.901	4.81	· MCH	1.940	10.35
22-DMP	3.00C	0.00	EC P	0.176	0.94
24-DMP	0.122	0.65	BENZENE	0.959	5.12
223-TMB	3.00C	0.00	TOLUENE	1.453	7.76

<u> </u>	TOTALS	STG COMP	RATIOS		
ALL COMP	19.072	C1/C2	2.32		
GASOL INE	18.739	A /02 D1/02	4.82 3.17	•	
		C1/D2	4.70		

_



O

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

File

2-5185-FL

Well

NAVAJO NO. 1

Field

DINEH BI KEYAH

	tatus of Well	
	Time	
	Elapsed Time Hrs.Min.	
	Joints To Fluid	ᇤ
) •	Feet To Fluid	TEST DATA
	Feet Of Fluid To Mid Pay	
1	Oil Column Psi @ .350/Ft.	
	Gas Column Psi @ .005/Ft.	

Averag Oil Gr Gas Gr	12	1973 Date
rage Tubing Lenght Gradient .350 psi per Gradient .005 psi per	Pumping Shut in	Status of Well
31.28 ft.	07:30 08:30 09:30 10:00 11:00 12:30 14:30 17:30	Time
	11 8 7 6 5 4 3 3 2 2 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Elapsed Time Hrs.Min.
	91.75 91.00 91.00 91.00 91.00 91.00 91.00	Joints To Fluid
	22222222222222222222222222222222222222	Feet Fluid
	48 79 72 72 72 72 72 72 72	Feet Of Fluid To Mid Pay
	22222222222222 55555555555555	Column Psi @ .350/Ft.
		Gas Column Psi @ .005/Ft.
	2272757757798 O	Casing Pressure Psig
	გიიტიფუფუფუფგუ <u>ა</u> იმეშეშეშეშეშეშეშეშეშეშეშეშეშეშეშეშეშეშეშ	2918 Psig

Total Oil Production to Test Date Total Water Production to Test Date

867,351 Bbls 20,524 Bbls

Daily Rate Daily Rate 113 BOPD 3 BWPD

CHRESTOR.

DINEH-BI-KEAVH

BHP Data 1973

Pressures calculated at 2,918', datum of +4500' is at 3,073'. Difference is 155' at 0.35 PSI/ft or 54 PSI

152 + 54 = 206 PSI at Datum

0

#2 Pressures calculated at 3,087', datum of +4500' is at 3,095'. Difference is 8' at 0.35 PSI/ft or 3 PSI

 $73 + 3 \approx 76 \text{ PSI at Datum}$

#9 Pressures calculated at 3,440', datum of +4500' is
at 3,378'. Difference is -62' at 0.35 PSI/ft or
-22 PSI

116 - 22 = 94 PSI at Datum

#138
-1 Pressures calculated at 3,451', datum of +4500' is at 3,766'. Difference is 315' at 0.35 PSI/ft or 110 PSI

183 + 110 = 293 PSI at Datum

AUG U 6 1973
0 & G CONS. COMM.

RESERVOIR PRESSURE REPORT

G

1

ULS SENSE

Second S				•				<u>,</u>	SOO S	2007		(つ・ナナナロ)によ					
Dineh-bi-Keyah Content Dineh-bi-Keyah Content		CGee CC	N D	ration			Co	-			1	 				Date 8-6-73	oate 73
Oil Gradient		bi-Keya	멅					-	Sacile		Jonerol Sm	*467*	Datui	n Plane		Gas Gravity	A
Note	1 =	Gradient	·	Water Gradient		Initial C	ompletion		Science		×		+	500	-	00.0	10
Well Name	-	0000	ļ,				Boy	mb Test L	Oata			Soule In	strument	reat Data			Pressure
Avajo 377 1 0 7-12-73 12 450 61 450 61 avajo 379 2 0 7-12-73 12 190 64 avajo 396 9 0 7-12-73 12 190 64 avajo Tract 388 1 0 7-10-73 12 110 15 110 15 88 1 0 7-10-73 12 110 15 88 1 0 7-10-73 12 8	Well Name				ni-jud2 smiT	Shut-In Tubing Pressure	Test	B.H. Temp.	Observed Pressure	Prod (Bbls p	Test or Day) Water	Liquid Level	Liquid Gradient		Wt. of Gas Column	Casing Pressure	- 1
Pressures taken from extrapolations of bottom hole pressure build-ups in accordance with forth by D. R. Horner (See attached data.) $RECEIV_{\perp}$	1		<u></u>	1	12 12 12 12 12					113 450 190 110							206
	Pressures forth by D	ken fro	H	ktrapolati (See attac	ons	of bo))		pressur		Tq-nb	ដ	a C C D L	dance	with	method	
	()													REC	NE N	<u>0</u>	(
AUG UC IS,										····				AUG	ر ان	_ 	-
O & G CONS. COMM.								· -						0 & G	ONS. CO	MM.	
			_		_			_									

CERTIFICATE: 1, the undersigned, under the ponalty of perjury, state that I am the DASE. PROG. SUDE....of the KELK-MCGEE COLDOLACION... (company), and that I am authorized by said company to make this report; and this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

August 6, 1973

27)

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Reservoir Pressure Report
File One Copy

Form No. 7

VV

C. J. Breeden

O

INSTRUCTIONS FOR RUNNING AND REPORTING BOTTOM HOLE PRESSURES

This report shall be mailed not later than the 15th day of the month immediately following the month in which the tests were made. All bottom hole pressure tests reported herein shall be made by a person qualified by both training and experience to make such tests.

- 1. Oll gradient shall be in pounds per square inch per foot,
- 2. Water gradient shall be in pounds per square inch per foot.
- 3. Datum plane shall be in feet plus or minus sea level.
- 4. Gas gravity shall be determined from an analysis of the casinghead gas.
- 5. Date Tested-Enter in this column the month and day on which the bottom hole pressure test was made.
- 6. Shut-in Time—Shall be reported accurately to nearest hour. The well tested shall have produced its normal daily rate of production or allowable within the 24-hour period immediately preceding the time at which it was shut in. (Any deviations shall be certified to on this report)
- 7. Test Depth—Shall be reported in feet as the lowest point to which the bomb was run and shall be reported in feet plus or minus sea level.
- 8. Bottom Hole Temperature—Shall be reported in degrees Fahrenheit as determined at test depth by either a recording or maximum reading thermometer.
- 9. Observed Pressure—Shall be reported as the pressure in pounds per square inch gauge observed at test depth before any necessary temperature correction has been made.
- 10. Production Test—The oil and water reported shall be from a representative production test immediately preceding the time at which the well was shut in.
- 11. Fiuld Level-The fluid level reported shall be in feet above the datum plane.
- 12. Fluid Gradient-Shall be in pounds per square inch per foot and shall be representative of both the oil and water gradient where the well produces water as well as oil.
- 13. Weight of Oil Column shall be in pounds per square inch,
- 14. Weight of Gas Column shall be in pounds per square inch.
- 15. Casing Pressure-Shall be reported as the pressure in pounds per square inch gauge
- 16. Datum Pressure-
 - (a) In the case of bomb measurements, this pressure shall be the observed pressure after the corrections for reservoir temperature and for the difference between test depth and datum plane have been made.
 - (b) In the case of sonic measurements, this pressure shall be determined from the weight of the fluid column plus the weight of any gas present above the fluid column plus casinghead pressure after proper corrections are made for temperature.

Calibration—The subsurface pressure instrument shall be calibrated against a dead weight tester both prior and subsequent to the dates at which all tests reported hereon are made, and in no case shall this time exceed a period of one month. The prior and subsequent calibrations shall net disagree by more than one per cent (1%). The dead-weight tester used for the calibration shall be approved by the State of Arizona Oil & Gas Conservation Commission

Form No. 7

•

- STAFFER

KERR-MCGEE WILLIAM OKLAHOMA CITY, OKLAHOMA 73102

September 19, 1969

Mr. John Bannister Oil and Gas Conservation Commission Room 202 - 1624 W. Adams Phoenix, Arizona

> Kerr-McGee Navajo No. 11 Interference Test Data

This will transmit the following data for your information:

- 1. Twelve-hour shut-in pressure build-up tests on the Navajo No's 1, 2, 3X, 4 and 9 two copies each well.
- 2. Arizona Form 7 with SIP's calculated for each of the above wells two copies.
- 3. No. 11 stabilized pressure survey conducted by Tefteller, Inc. prior to the shut-in of Well No's 1, 2, 3X and 4 two copies.
- 4. Pressure surveys 1 through 4 conducted by Sperry-Sun reflecting the bottom-hole pressure in the Navajo No. 11 during the interference test one copy each.

The subject test was conducted in August, 1969, utilizing the Navajo No. 11 to monitor reservoir pressure and the No's 1, 2, 3X and 4 to initiate a drawdown signal as offsetting producers. A schedule of events is as follows:

TEST SCHEDULE

August 9, 1969 (Saturday)

6:00 AM - Recovered No. 11 load and shut-in well

9:30 AM - Rods out of No. 11

10:30 AM - Amerada Pressure Bomb on bottom to record 24 hours of stabilized pressure.

August 10, 1969 (Sunday)

12:15 PM - Amerada Bomb out of hole
Pressure stable @ 132 psig @ 2845' (+4561)
throughout entire 25-3/4 hour period.

12:45 PM - Amerada Bomb on bottom

1:40 PM - Shut-in Navajo No's 1, 2, 3X and 4.
Conduct 12-hour shut-in pressure build-up tests.

5:55 PM - Amerada Bomb out of hole

6:35 PM - Sperry-Sun Pressure Gauge on bottom @ 2845' (+4561)

371

42

STATE COMMENTS OF THE PARTY OF

John Bannister September 19, 1969 Page 2

August 11, 1969 (Monday)

1:40 AM - Turn on Navajo No. 4 1:40 PM - Turn on Navajo No. 3X

August 12, 1969 (Tuesday)

1:40 AM - Turn on Navajo No. 2 1:40 PM - Turn on Navajo No. 1

August 14, 1969 (Thursday)

6:30 AM - Pulled Sperry-Sun Pressure Gauge - End Run No. 1 8:10 AM - Sperry-Sun Gauge on bottom

August 15, 1969 (Friday)

9:00 PM - Pulled Sperry-Sun Gauge - End Run No. 2 10:30 PM - Sperry-Sun Gauge on bottom

August 17, 1969 (Sunday)

2:50 PM - Pulled Sperry-Sun Gauge - End Run No. 3 4:30 PM - Sperry-Sun Gauge on bottom

August 18, 1969 (Monday)

2:00 PM - Pulled Sperry-Sun Gauge 192-1/3 hours after official test began (192 hours required) with the shutting-in of Navajo No's 1, 2, 3% and 4. Shut-in Navajo No. 9 to conduct 12-hour shut-in pressure build-up test. Start official potential test on Navajo No. 11.

August 19, 1969 (Tuesday)

2:00 AM - Turn on Navajo No. 9

Except for minor fluctuations where bottom-hole conditions were interrupted by pulling and re-running the pressure gauge, only one interference point was noted on the Sperry-Sun data. At approximately 5:10 AM on August 12, 1969, an inflection point, although quite subtle, occurred on the Navajo No. 11 bottom-hole pressure plot. This occurrence was 34-1/2 hours after the Sperry-Sun

Λ^{1′}

John Bannister
September 19, 1969
Page 3

instrument reached bottom on the first run and 27-1/2 hours after the Navajo No. 4 had been returned to production. Based on radial flow calculations, which may not be applicable to this type of reservoir, this drawdown would be caused by the Navajo No. 4. We could not identify from this data any other well which may have contributed to interference with Well No. 11. It is probable that a critical examination of future individual well performance may provide the best information to evaluate the effects of Well No. 11.

As you will note, shut-in pressure build-up tests are reported on more wells than are required by Order No. 24. Kerr-McGee desired to have this additional information, and it is also reported for the information of the Commission

Sincerely yours,

KERR-McGEE CORPORATION

Bill P. Stauss
Production Division

Production Division

BPS:md Enclosures

cc: Humble Oil & Refining Company

15⁷1

August 15, 1969

Memo to Kerr-McGee #11 Navajo 8832 T36N, R30E, G & SRM 3ec. 32: NW/4 3E/4 Apache County Permit #506 ×

Memo From J. Scurlock

On Thursday, August 14, at 6:30 a.m. I accompanied Mr. Bill Stauss and Red Walsh to the Kerr-McGee #11 Well in order to witness the recovery of the Sperry-Sun pressure instrument which had been in the hole for 84 hours; that is, since Sunday at 1:40 p.m. The recovered instrument; which is an extremely sensitive pressure measuring device, showed that at the beginning of the test the pressure reading was 134.26 pounds and that during the course of the first 46 to 48 hours of the test the pressure gradually built up to about 135.54 pounds and that after this initial 46 to 48 hours and for the remainder of the 84-hour testing period the pressure declined to a final reading of 134.97 pounds. This is to say that a field reading indicated a deflection in the curve after a 46 to 48 hour period during which time the #1, 2, 3%, and 4 wells were shut in. 377 377 30

At this time it is assumed that this deflection represents the effect from well #4 which was put back on production at 1:40 a.m. Monday morning after a 12-hour shut in. Mr. Stauss had calculated that a deflection point from this well would be seen after 46 hours and so we were very gratified to see that the actual test data bore out his calculation.

The meaning of this series of tests is that we are now sure that the #11 well has good avenues of communication with the rest of the field and this determination primarily was the reason for the tests. The remaining tests will show deflection points on the curve as the effect from wells 3x, 2, and 1 are felt now that they have been placed back on production. This further testing is for the purpose of indicating the direction of the avenues of communication between the #11 well and these other four wells. In other words, we hope to be able to determine the nature of the fracture system within the reservoir and just which other wells may be in close communication with the #11 well.

277

377

Page 2

्राष्ट्रकार विकास

. 200 102 102 103

Memo to File #506 August 15, 1969

The Sperry-Sun bomb will be pulled again tonight at 11:30 p.m. and again on Sunday afternoon at about 3:00 or 4:00 p.m. and then again for the final time on Monday afternoon, August 18, at 1:40 p.m. which time will end the 182-hour testing period.

I would presume that as a result of this series of tests that Kerr-McGee will not wish to drill anymore inside locations nor wish to change the spacing pattern in the field because it is obvious that the established spacing is providing adequate drainage.

31

~^

•

G.

RESERVOIR PRESSURE REPORT

	:						***************************************	mooney +	200								
Operator	,						!	P.	0	Box 250,		Amarillo,	Texas	- }	79105	A	Date
Kerr-McGee Corporation	porati	lon					County	t)	,							8/3/71	71
nineh-bi-Kevah								Apache	ne File	-	Change Survey	rveve	Datum	Datum Plane		Gne Gravity	
ation	Ora		≱	Water Gradient	ň	Initial Q	Initial Compietion.	nulpeds:		- 	XX		+4	+4500'	_	-	
Hermosa	.350	-	-}-		-		Bom	Bomb Tost Data	ata			Sonia Ine	Sonic Instrument Test Data	est Data			Pressure
Well Name	Permit No.	Well No.	o (O) IIO (B) 889	Date	al-tud2 smlT	Shut-In Tubing Pressure	Teat Depth	B.H. Tomp.	Observed Pressure	Prod (Bbis p	Prod. Test (Bbis per Day) Oil Water	Liquid	Liquid Gradient	Wt. of Liquid Column	Wt. of Gas Column	Casing Pressure	Datum *
Navajo	377	<u></u> 1	!	7-6-71	175					185	9 9		e D	17	.mwo:		349
Navajo	379 2	~~	0	7-6-71	12) } 1))		41	กุ	o ·s		70
Navajo	396	. 6	0	7-6-71	12					7 7 8	8 S		кесы	g env	NOO 9 2 0		
	*Pressures with metho	Basun P me	ures ta	aken set	from forth	extrap by D.	extrapolations by D. R. Horne	ions of Horner	bott (See	bottom hole See attached		pressure d data).	build-ups		n a	accord an ce	o
					·												₩
		, a.e. : 			-						· · · · · · · · · · · · · · · · · · ·						
															_		

· Designate type of report by "x".

Bate 8/3/71

ントン

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION

Reservoir Pressure Report File One Copy

Form No. 7

O

TEFTELLER, INC.
RESERVOIR ENGINEERING DATA
Midland, Texas

Well NAVAJO NO. 1

Page 3

Field

DINEH BI KEYAH

File 2-4306-FL

DIMENSIONLESS TIME DATA

Date	Elapsed Time Hours	T ÷ dt	dt T	Pressure 0 2918' Psig
7-6-71	0.5	98,322.5	0.0000051	56
H	1.0	98,323.0	0.0000102	68
· a	1.5	98,323.5	0.0000153	72
11	2.0	98,324.0	0.0000203	81
a)	2.5	98,324.5	0.0000254	8 9
31	3.0	98,325.0	0.0000305	96
ıı	3.5	98,325.5	0.0000356	98
11	4.0	98,326.0	0.0000407	98
ti	5.0	98.327.0	0.0000509	100
11 .	6.0	98,328.0	0.0000610	100
II	7.0	98,329.0	0.0000712	107
11	8.0	98,330.0	0.0000814	112
11	10.0	98,332.0	0.0001017	115
	12.0	98,334.0	0.0001220	117

782,481 BBLS Fluid 191 B/D 98,322

Cumm. Rate

 $R_{\mathcal{E}_{C_{\mathcal{E}_{I_{\mathcal{V}_{\mathcal{E}}D}}}}}$ ORG CONS. COMM.

Carrier !

DINEH BI EUGENE DIETZGEN CO. MADE IN U. B. A. . 34DR-L310 DIETZGEN GRAPH PAPER SEMI-LOGARITHMIC 3 OYCLES X 10 OIVISIONS PER INCH o Z NAVAJO NO.

PRESSURE : PSIG @ 2918 FEET

TEFTELLER, INC. RESERVOIR ENGINEERING DATA Midland, Texas

CERTIFIC .

σ of File 2-4306-FL Gas Column Psi @ ,005/FT Oil Column Psi @ .350/FT TEST DATA Feet To KEYAH NAVAJO NO BI DINEH

Field

BHP 52918 56 68 72 81 89 98 98 100 100 1112 Casing Pressure Psig 97 441 441 441 441 63 63 63 63 63 Feet Of Fluid To Mid Pay Fluid Joints To Fluid 90.0 90.0 88.0 88.0 88.0 88.0 88.0 87.5 87.5 87.5 87.5 Elapsed Time Hrs.Min. 1971 Date

RECEIVED AUG 5 19/1 O & G CONS. COMM.

.350 Psi per foot .005 Psi per foot

Oil Gradient Gas Gradient

Average Tubing Length 31.28'

bbls. bbls.

Total Oil Production to Test Date 766,461 Total Water Production to Test Date 16,020

Oil Rate 185 B/D Water Rate 6 B/D

RESERVOIR PRESSURE REPORT

(£

Kerr-McGee Cor	Corporation	ion				County	nty P	o	Box 250, Amarillo,	, Ama	21110	Texas		COTC	Date	nte 8-4-72
Dineh-bi-Keyah	ah Oil Gradient		Water Gradient	ont	Initlal (Initial Completion.	Apache Special*	elal.	5	General Survey*	vey*	Dutum Plane +4500	Plane 00	5	Gas Gravity 0.005)5
Hermosa 0	350	1	E 1	-		Bor	Bomb Test Data	ata	-		Soule Inst	Sonic Instrument Test Data	et Data	-		Pressure
Well Name	Permit No.	Well (O) o (G) se	Date Tested	Shut-fn Time	Shut-In Tubing Pressure	Tout Depth	B.H. Temp.	Observed Pressure	Prod. (Bbls p	Prod, Test (Bbls per Day) Oli Water	Liquid Level	Liquid Gradlent	Wt. of Liquid Column	Wt. of Gas Column	Cusing	At Datum *
Navajo Navajo	377	0 0	7-19	12					135	12					<u> </u>	301 4£ 286
Navajo	396	<u>o</u>	7-19	12					0 N	N 0						
				e e e e e e e e e e e e e e e e e e e										RE	RECEIVED AUG 07 1972	ED 1/c
	* * * * * * * * * * * * * * * * * * *	*Pressures	sures taken i method set	from forth	n extr th by	extrapolations of by D. R. Horner (ions (of bott	bottom hole K See attached	р р Г	pressure d data).		bui 1d-ups	o di se	O & G CONS COMM.	COMM.
																į

• Dosignate type of report by "x".

CERTIFICATE: 1, the undersigned, under the penalty of perjury, state that I am the.. District. Engine Ting in the Kerr-McGee. Corportation. (company), and that I am authorized by said company to make this report; and this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

; *

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Reservoir Pressure Report
File One Copy

J.C.

Form No. 7

8-4-72 Date 317

O

Build-Up July 12,

PILIKTED

٥

1-3 + Ņ ⊢∃

5.)

Pressure - PSIA

acesses)

PRESSURE BUILD-UP TEST

I .ON OLAVAN

Test Date: 7/12/68

Dimensionless Pressure Drawdown, p(the)

 $p(t_{De}) = 2.303 (Pi - P*)$

boundary of drainage system. Where: $p(t_{De})$ = dimensionless pressure drawdown at exterior

reservoir = 729 psia Pi = initial static pressure in drainage system or

 $p^* = pressure at exterior boundary determined by$

(plot attached) plot to infinite shut-in time = 397 psia extrapolating straight line slope of build-up

CALCULATION SHEET

per square inch per cycle = 62 (plot attached) M = straight line slope of build-up plot, pounds

 $p(t_{De}) = \frac{2.303(729 - 397)}{62} = 12.33$

Dimensionless Producing Time, the

p(the) versus the (refer to Case No. 26 hearing exhibits for example of this The dimensionless producing time is determined to be 3.95 from a plot of

Average Static Pressure, P

Where P = average static pressure of the drainage system $\overline{P} = Pi - \lambda_1 \gamma \gamma \gamma N t De$

 $\frac{\text{sizq } 40\text{E}}{\text{C}} = (29.\text{E}) (23) 787.1 - 927 = \overline{q}$

acessa .

· SANGERAN

PRESSURE BUILD-UP TEST

NAVAJO NO. 1

CALCULATION SHEET

Test Date: 7/12/68

Dimensionless Pressure Drawdown, p(tne)

 $p(t_{De}) = 2.303 (Pi - P*) M$

Where: $p(t_{\overline{D}e})$ = dimensionless pressure drawdown at exterior boundary of drainage system.

Pi = initial static pressure in drainage system or reservoir = 729 psia

P* = pressure at exterior boundary determined by extrapolating straight line slope of build-up plot to infinite shut-in time = 397 psia (plot attached)

M = straight line slope of build-up plot, pounds per square inch per cycle = 62 (plot attached)

 $p(t_{De}) = 2.303(729 - 397) = 12.33$

Dimensionless Producing Time, the

The dimensionless producing time is determined to be 3.95 from a plot of $p(t_{De})$ versus t_{De} (refer to Case No. 26 hearing exhibits for example of this plot).

Average Static Pressure, P

 \overline{P} = Pi - 1.737 M tDe Where \overline{P} = average static pressure of the drainage system

 $\overline{P} = 729 - 1.737 (62) (3.95) = 304 psia$





X. Chrono

August 11, 1969

Nemo to Kerr-McGee #11 Navajo 8832 NW/4 SE/4 Section 32-T36N-R30E Apache County Permit #506 \

From J. Scurlock

Telephone conversation at 4:00 p.m. this date with Bill Stauss, KerrNcGee, concerning the Kerr-McGee #11 Navajo well. Mr. Stauss indicated that the #11 well had recovered all of the load oil (by beam
pump) plus about 15 barrels of crude oil. On Sunday at 6:30 p.m. the
Amerada pump was placed in the well for 84 hours and recovered from
the well at 6:30 a.m. Thursday morning.

Bill reports that the #1, 2, 3X, and 4 wells were shut in at 1:40 p.m. Sunday. The #4 well now has been put back on production as of this morning at 1:40 a.m. The #3X well resumed production this afternoon at 1:40 p.m. (after 24 hours shut in). The #2 well will resume production tomorrow at 1:40 p.m. and the #1 well will resume production tomorrow at 1:40 p.m. (after 48 hours shut in).

Mr. Bannister has directed Red Walsh and Geologist Scurlock to be present at 6:30 Thursday morning in order to witness the recovery of the Amerada part and its replacement with the Sperry-Sun instrument.

The #11 well appears to have fair communications with at least one neighboring well inasmuch as the shut-in pressure has been shown to be low; that is, on the order of 128 to 130 pounds. The well was initially shut in with the Amerada pump on Saturday morning and left shut in for a period of 26 hours.

7 ----

RESERVOIR PRESSURE REPORT

The second car give soil and

Œ.

ERROLL [

Morr-Maces Corporation	rodro.	stion						777	ZIS Forrotom center purificates	TEO HELO	וניסו	777	3			1	Fertiligation and Date
	•				ļ		County		Арасре	••	4					83-9-68	ထွ
- T	yan Oli Gradlent	11.		Water Gradient		Initial C	Initial Completion.	Spec	Special	5	General Survey	vey*	150 150 150 150 150 150 150 150 150 150	Datum Plane		Gas Gravity	,
Hormosa					-	-	Ron	l Romb Test Data)ata			Sonic Ins	Sonic Instrument Test Data	est Data	1		Pregante
Well Name	Permit No.	Well No.	(D) (O) (O) or	Date Tested	ni-ind2 omiT	Shut-In Tublng Pressure	Tost Depth	B.11. Temp.	Observed Pressure	Prod, Test (Bbls per Day) Oll Water	Test er Day) Water	Liquid	Liquid Gradiont	Wt. of Liquid Column	Wt. of Gas Column	Casing Pressure	At Datum *
Navajo	377	+4	0	7~12~68	12		602m		120 psig					6117	4		304 psia
Mava jo	379	ď	0	7~12~58	23		4573		200				(C)	LE.	3)		•
Mavajo	386	#	0	7,12,68	12		4595		192				CO.	\2 .15	<u>\$</u> 16		
Navajo	389	~	0	7=12=68	12		4395		114			1	इ. सहर्	ر دی: ادی:	11077 S		191
Navajo	396	9/	0	70.12m68	12		4457		88			_	10	G.	?\ <u>\</u>		160
Mavajo "B"	14.	# #	0	7=12=68	12		6024		230			_		3. 	`\		**************************************
Pressures taken from entrapol.	talen by Mr.	from D ₀		+	2 t	ions of bottom hole (see attached data)	9	omesend	edn-plind (Ą	accordance with method	n eour	非 在 1 1	pod Epod			Ç

Designate type of report by "x".

Angnat 9, 1968

Signature G D MELLECTS

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Reservoir Pressure Report
File One Copy

Form No. 7

Ę,



July 27, 1967

Mr. John Bannister State of Arizona Oil & Gas Conservation Commission Oil & Gas Division Room 202 - 1624 W. Adams Phoenix, Arizona 85007

Mr. Henry F. Pohlmann Minerals Supervisor The Navajo Tribe 412 Petroleum Plaza Building 3535 E. 30th Street Farmington, New Mexico 87401

IGNEOUS SILL RESERVOIR DINEH BI KEYAH FIELD

Mr. John P. Anderson United States Geological Survey P. O. Drawer 1857 Roswell, New Mexico 88201

Mr. P. T. McGrath United States Geological Survey Oil & Gas Division P. O. Box 959 Farmington, New Mexico

Please find enclosed additional pressure information which we have acquired during the initial productive life of the subject reservoir.

Attachment No. 1 contains all of the shut-in pressure data which we have on wells which are presently producing. This data includes both original and subsequent shut-in pressures taken after each well's completion. Subsurface pressure bombs have been run on six of the nine wells which are presently producing. A data sheet and pressure plot was made for each bomb run by the technician in charge of the survey. This correspondence on four of the six wells (Nos. 2, 4, 7, 9, 14 and 15) on which this survey was conducted is also attached. The data sheets have not been received from the field on Nos. 4 and 15; however, the pressures recorded in these wells have been presented.

Attachment No. 2 contains shut-in pressure buildup data on five producing wells (Nos. 1, 2, 3X, 7 and 9). Please note the rapid pressure buildup characteristics of each well. In an effort to gain as much factual data and knowledge from this reservoir as possible; we are considering gathering additional pressure data.

Utilizing production history and pressure data the indicated producing mechanism at this time is probably solution gas drive.

. Lowelse

18: <u>- 2011-122.</u>

July 27, 1967 Page -2-

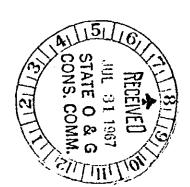
We hope this data will be beneficial to your consideration of this reservoir.

KERR-McGEE CORPORATION

John I. Fisher Regional Production Manager

JIF/bes attachments

cc: C. D. Williams



PRESSURE BUILD-UP TEST

()

NAVAJO NO. 1

DATA SHEET

Test Date: July 12, 1968
Producing Rate when shut-in: 420 BPD
Producing Pressure when shut-in: 48 psig @ +4703'
Producing Pressure corrected to +4500' Datum: 128 psia
Cumulative Production to test date: 329,207 bbls
Producing Time (T): 18,812 hours

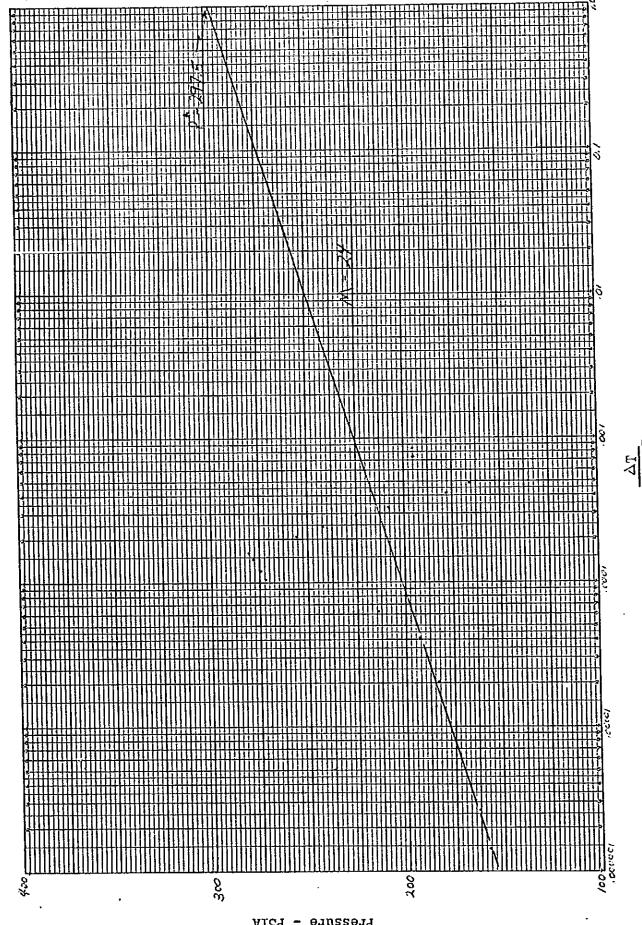
Time	Shut-] Min.	In Time Hrs.	Recorded Press. (PSIG)	Corrected Press. @ +4500' (PSIA)	$\frac{\Delta T}{T + \Delta T}$
8:00 AM	0	0.0	48	128	0
8:30 "	30	0.5	62	142	.0000266
9:00 "	60	1.0	70	150	.0000532
9:30 "	90	1.5	72	`152	.0000797
10:00 "	120	2.0	. 78	158	.0001063
10:30 "	150	2.5	80	160	.0001329
11:00 "	180.	3.0	86	166	.0001594
11:30 "	210	3.5	88	168	.0001860
12:00 Noon	240	4.0	92	. 172	.0002126
1:00 PM	300	5.0	96	176	.0002657
2:00 "	360	6.0	98	178	.0003188
3:00 "	420	7.0	104	184	.0003720
4:00 "	480	8.0	110	190	.0004251
6:00 "	600	10.0	114	194	.0005313
8:00 "	720	12.0	120	200	.0006375



NO. 32,228.

- 317

Navajo No. 1. Pressure Build-Up Plot - August 10, 1969 - +4500' Datum



AIST - exusserq

O

PRESSURE BUILD-UP TEST

NAVAJO NO. 1

DATA SHEET

Test Date: 8-10-69
Producing Rate when shut-in: 505 BPD (491 BOPD)
Producing Pressure when shut-in: 109 psig at 2918' (+4655 - Mid Pay)
Producing Pressure corrected to +4500' Datum: 174 psia
Cumulative Production to test date: 498,387 bbls
Producing Time (T): 24,360 hours

<u>Time</u>		Shut-I <u>Min.</u>	n Time Hrs.	Mid-Pay Press (PSIG)	Corrected Press @ +4500* (PSIA)	$\frac{\Delta T}{T + \Delta T}$
1:40	PM	0	0.0	10 9	174	0
1:42		2	0.0334	93	1 58	.0000014
1:44		4	0.0668	98	163	•0000027
2:00		20	0.3334	120	185	.0000137
2:10		30	0.5000	117	182	•0000205
2:40		60.	1.0000	128	193	.0000410
3:10		90	1.5000	149	214	•0000616
3:40		120	2.0000	200	265	.0000821
_	11		2.5000	207	272	•0001026
4.70		150	3.0000	209	274	.0001231
4:40		180		213	278	.0001437
J•±∨	11	210	3.5000		281	.0001642
J.40	11 .	240	4.0000	216		.0002052
6:40	u .	300	5.0000	1 91	256	.0002462
7:40	(E	360	6.0000	177	242	
	17	420	7.0000	160	225	.0002873
	TI .	480	8.0000	143	208	•0003283
11:40	ti	` 600	10.0000	112	178	•0004103
1.40	ΔM	720	12.0000	112	166	.0004924

311

.

RESERVOIR PRESSURE REPORT

0,40		١.	*	PSIA 258 191 211 126 136	method
102	4	Prossure	<u> </u>	2 - P 12 13 13 13	1
	Gas Gravity		Casing Pressure		nce
Okla			Wt. of Gas Column		accordance with
City	Datum Plane	+4500 rest Data	Wt. of Liquid Column		i a c
Oklahoma City	Datum	rument A	Liquid Oradiont	12/11/12	t s
0k1a		sonic Instrument Test Onta	Liquid	SAMOS	up tes
ling	General Survey.	×		13/13/13/15 (2) (A) (A) (A) (A) (A) (A) (A) (A) (A) (A	build-
Build	Gene	_	Prod. Test (Bbis por Day) Oil Water	PITZI 19	
Kerr-McGee Building.	Apache Bocolal*	1 1	Observed Prossure	Psig 112 170 163 126 118	le pressure
	-		B.H. Ol		om hole
County	and later of the	1	Test Depth	+4655 +4429 +4552 +4462 +4457	bott
	0.1		Shut-In Tubing Pressure		tions of
			al-tods smiT	Hrs. 12 12 12 12	e D a t t t t t
		Water Gradient	Date	8-10-69 8-10-69 8-10-69 8-18-69	om extrapolations Horner (see attacl
LION	ļ	. دډ	70 (O) [[((ඩ) உඩ		Arom R. Ho
ORA	_	ont DSi/ft	Well No.	(y) 2 % 4 6	D ted
EE CORI	i-keyah	Oil Gradient	į.	Permit Number 377 379 386 386 384	calculated from
Speciator KERR-MCGEE CORPORATION	Meld Dineh-bi-keyah	Producing Formation	Loade	vajo 46 Navajo Navajo Navajo Navajo	*Pressures

Designate type of report by "x".

CEMITIFICATE: 1, the undersigned, under the penalty of perjury, state that I am the... RESETVOIR. HARRA.....of, the Kett-McGee Corporation and that I am authorized by said company to make this report; and the trends was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

September 12 1969

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Reservoir Prossure Report
Form No. P-12
File two copies
Authorized by Order No. 4-0-59
Authorized by Order No. April 6, 19 59

377

C

O

PRESSURE BUILD-UP TEST

4 NAVAJO NO. 1

CALCULATION SHEET

Test Date: 8-10-69

Dimensionless Pressure Drawdown, $p(t_{De})$

$$p(t_{De}) = 2.303 (Pi - P*)$$

Where: p(t_{De}) = dimensionless pressure drawdown at exterior boundary of drainage system

Pi = initial static pressure in drainage system or reservoir = 729 psia

P* = pressure at exterior boundary determined by extrapolating straight line slope of build-up plot to infinite shut-in time = 297.5 psia (plot attached)

M = straight line slope of build-up plot, psia per cycle = 24 (plot attached)

$$p(t_{De}) = 2.303 (729 - 297.5) = 41.41$$

Dimensionless Producing Time, \mathbf{t}_{De}

The dimensionless producing time is determined to be 11.3 from a plot of $p(t_{De})$ versus t_{De} (refer to Case No. 26 hearing exhibits for example of this plot).

Average Static Pressure, P

 \overline{P} = Pi - 1.737 M t_{De}

Where \overline{P} = average static pressure of the drainage system

 $\overline{P} = 729 - 1.737 (24) (11.3) = 258 psia$

Attachment No. 1

Shut-in Pressure History Information

- 1.2.184C14

Navajo No. 1 - Perfs. 2860-85 (+4713 - +4688); Sensor: 2718 (+4842)

Original (est. from fluid level):
2-4-67 650 psig @ 2872 (+4701 - cent. of perfs.)
718 psig @ +4500 datum

Additional:		SI Pressure (Psig)	
Date	Sensor	Perforations	+4500 Datum
4-1-67	462	512	582
4-28-67	462	512	582
7-6-67	386	436	506

Navajo No. 2 - Perfs. 3060-3114 (+4554 - +4500); Sensor: 2590 (+5014)

Original (Sub-surface bomb):
3-10-67 645 psig @ 3087 (+4527 - cent. of perfs.)
654 psig @ +4500 datum

Additional:		SI Pressure (Psig)	
Date	Sensor	Perforations	+4500 Datum
4-1-67	440	610	619

Navajo No. 3X - Perfs. 3427-3457 (+4575 - +4545); Sensor: 2967 (+5040)

Original (Sensor Pressure):
4-7-67 412 psig @ 2962 (+5040 - sensor location)

601 psig @ +4500 datum

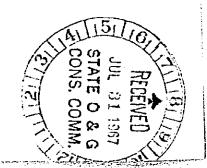
Additional:

		SI Pressure (Psig)	
Date	Sensor	Perforations	+4500 Datum
5-10-67	344	512	533
5-24-67	332	500	5 21
7-6-67	284	452	473

Navajo No. 4 - Open hole 2898-2960 (+4476 - +4414); Sensor: 2788 (+4573)

Original (Sub-surface Bomb)
7-17-67 490 psig @ 2950 (+4411)
459 psig @ +4500 datum

Navajo No. 6 - Perfs. 3672-3726 (+4673 - +4619); Beam Pump - No Sensor Original (Est. from Fluid Level): 6-30-67 489 psig @ 3699 (+4633 - cent. of perfs.) 535 psig @ +4500 datum



Attachment No. 2

Shut-in Pressure Build-up Data:

Navajo No. 2 - Test date: 3-19-67

Original SIP on 3-10-67 was 645 psig at 3087 (+4527) or 654 psig at +4500 Datum; Perforations: 3060-3114' (+4554-+4500'); Pressure Sensor at 2590 (+5014); Orig. SIP at Sensor 475 psig. Well SI 3-19-67 after producing at 2875 BOPD rate with 360 psig sensor pump pressure (530 psig at center of perfs.) Pressure build-up as follows:

11:50 AM - SI - Pump Press. 530 psig (cent. of perfs.)
11:55 AM - 600 psig
12:00 Noon - 600 psig
12:05 PM - 600 psig
12:10 PM - 610 psig
12:15 PM - 610 psig
1:15 PM - 610 psig

Navajo No. 1 - Test Period: 7-3 to 6-1967

SIP on 4-28-67 was 462 psig at 2718 (+4842 - sensor location) or 582 psig at +4500 datum; Perforations: 2860-85 (+4713 - +4688) Sensor at 2718 (+4842). Well SI on 7-3-67 after pumping at 550 BOPD rate with 94 psig sensor pressure (214 psig at 4500 datum) Pressure build-up as follows:

Time After SI	Pressure at +4500 Datum
0 SI	214 psig
16 hours	445 psig
40 hours	488 psig
64 hours	506 psig

Note: Build-up test indicated that additional pay section should be opened. The well was subsequently recompleted by opening an additional 57 feet of pay and fracture treating. A threefold productivity increase was accomplished.

Navajo 3X - Test Period: 7-3 to 6-67

Original SIP on 4-7-67 was 580 psig at 3442 (perfs - +4560) or 601 psig at +4500 datum; Perforations: 3427-57 (+4575 - +4545); Pressure Sensor at 2962 (+5040). Well SI 7-3-67 after pumping at 2540 BOPD rate with 250 psig sensor pressure (439 at +4500 datum). Pressure build-up as follows:

	•	% Change
Time After SI	Pressure at +4500 Datum	Fm. Last Press.
0	439 psig	=
16 hours	463 psig	5.2%
40 hours	 469 psig	1.3%
64 hours	473 psig	0.8%

Note: 97.9% of the wells 64 hour SIP was achieved after 16 hours.

RECEIVED NO. STATE O & G

٠														A	KIZ
			~	·						***************************************					
	WE	II COY	APIL, ON	OR R	ECOMPI	LETIC	ON R	EPORT	ANI	·WELL	LOG	ð			-
New [7] World	k- 😅				E TYPE			Differe Reserv	enț (*	า	X		П	Dry	\neg
New Work Well Over	k- X	Deepen		nek ESCRIP	Reser	1	K ANI			J Oil	IV.	Gas	<u> </u>	Dry_	
Operator					-1011 02	Add	ress I	'armi	ngto			lexic	5 6	7401	
Kerr-McGee	Corpo	ratio	on					etrol				Bldg.			
Federal, State or Inc. Nava jo	ian Lease 1 14-20-	Number ባ -በሐበዓ	r name of le: =8823	ssor if fee	e lease		Num			Reservo h-bi		vah,	Her	mose	a
Location	114-E-0-	-0007				1	Cou	nty			•				
660' FSL &							Apa	ache							
Sec. TWP-Range or Sec. 32, T	36N, F	130E													
Date CONTROL W	orkove	ate total		hed D	ate comple	ted, r	eady to	o Ele (Di	vation F, RKB,	RT or	Gr.) feet	hd. fla	ion of nge	casing	feet
7-14-67 Total depth		P.B.T.D.	13-65	S	ingle, dual	or tr	iple co	mpletion:	7560	It th		dual or t	riple o	ompletic	on,
38641		30	50!		Singl					pleti	on.				
Producing interval		completio	on			L.	tary to	ools used	(interv	RI)	No	NG NG	er (ID	retari)	
Was this well direct		llied? Wa		al aurvey	made?	-	as copy	of direc	tional s	irvey		e filed			
No		1	No	lod with	the commi			No		<u>.,</u>	Dat	Mono e filed			
Type of electrical IndElect	or other 10.	serun (c Sonic	⊶GR, C	alipe	er Cen	en t	<u>:_В</u> о	nd				t. 22	, 1	96 <u>5</u>	
				_	CASING	REC	ORD		-						
Casing (report all Purpose	strings set		-conductor,		intermedia Weigh				oth set		Sacks	cement	1 4	Amt pu	iled
	<u> </u>		<u> </u>		40.5			323			20	<u></u>	No	ne	
Surface Production	13-3 8-3	/ <u>0</u>	10 - 3/	4	20			3159			70		No		
	<u> </u>								TINED	RECORI			<u> </u>		
	Depth set		cker set at	Size		To	D.		Bottom			ks cement	s	creen (1	(t.)
	2762	tt. No	ne !	et.	ir	ı. No	one	ft.		ft	1				
			RECORD	th Interv				E kind o			CEM	ENT SQU	eeze		KD
Number per ft.	Size &					_ _					-	25	260	2942	
4	<u>.46</u> је .50 је	_=	2 <u>8601-2</u> 28851-2			3(0.00)0 <u>ga</u>)0#Sd	300	O#Ade	- - omi:			· - 74 -	
	<u>- 20 Ju</u>				INITIAL	PROL	UCTIO	מכ							
Date of first pro-	duction	P	roducing me		dicate if fi	owing	, gas	lift or pi	ımping–	-ir pump	ing, s	now sixe	z type	or bar	ոք։յ
7-19-67 Date of test H	rs. tested	Choke	Reda l		during tes	st G	as pro	d. during	test	Water	prod.	during tes	t Oi	i gravit	
	2կ.	None		1851	bble ro- Oil	9. <u> </u>	135	Gas	MCF		0 Vater	ppla		3 AP	I (Corr)
Tubing pressure	Casing	pressure)	duction	rate of Pi per 24 l	18	51	bbis.	م ما	5	MCF	0	bbla	1		bb 1.
Disposition of gas	s (state wh	ether ven	ted, used for	r fuel or	sold):										
Vented.															
CERTIFICATE: I										ic ti o			· • • • • •		.of the
Kerr-McG	ee Cor	pora	tion		company).	and t	hat I	uthor	ized by	said com	any to	make this	repor	t; and th	hat this
report was prepa	ered under n	ny supervi	sion and dire	ection and	that the f	acıs Si	ztear.		Je, 60		Tanpi	10 me	# OI	, XIIO	
7-31-6	7						Lein	1 U /	·(eel	٠ سا	···-	
'Date			81119	110	λ		Sig								
		<u> </u>	> REI	ÊVFN				•							
			AUG	2 196	,自	Т				STATE	OF A	RIZONA		 -	
	•	ज	STATE	$\bigcap \mathcal{A}$				OIL	& GAS			TION CO		SSION	
		, F	CONS.	COMN				Well C	ompleti		-	tion Repo	t and	Well Lo	g
Permit No.	377_	ノ		بر			For	m No. 4		Fil	e One	Сору			٠
_			X / 1/4 / T		0/	ı									

(Complete Reverse Side)

) ·) "		-	
Form 9-330 Rev. 5-63)	110	ED S	TATES	SUBMI	r in dupi		Forn Budg	n approved. et Bureau No. 42–R355.	.5.
1	DEPARTME			ERIOF	((s	See other in- tructions on	1	TATION AND SERIAL N	
		OGICAL			ir i	everse side)	14-20-06		
<u>. :</u>					AND	OC *	6. IF INDIAN, AL	LOTTEE OR TRIBE NAM	Æ
	APLETION OR		LEHON KE	POKI	AND L	00	NAV A JO		
1a. TYPE OF WELL	OIL X	WELL.	DRY O	ther			7. UNIT AGREEM	ENT NAME	
b. TYPE OF COMP		pti'c 🗔	DIFF.	:			S. FARM OR LEA	SE NAME	
, ware —	OVER X DEEP OVER	PLUG DACK	RESYR. O	ther			NAVAJO		
2. NAME OF OPERATO		On					9. WELL NO.		_
3. ADDRESS OF OPER	ee Corporati	. 011		<u> </u>			HO. 1		
STE Patro	oleum Center	· Eldg.	- Farmin	gton,	New M	exico		POOL, OR WILDCAT	
4. LOCATION OF WELL	L (Report location clea	rly and in acco	rdance with any	State requi	ements)*		Dineh-bi	M. OR BLOCK YZD SUBA	EY
At surface 6	60' FSL & 20	000' FWI	, of Sec.	32.	Ì		OR AREA		
	erval reported below			1			611a & S	T36N, R30E	
At total depth	•			-	i			Meridian	
Same	•	Ī	14. PERMIT NO.		DATE ISSUI	ED	12. COUNTY OR PARISH	13. STATE	
Horkov	er	<u> </u>	tate No.	377	1-23-		Apache	Arizon	
15. DATE ALEXA	16. DATE T.D. REACHE	1		prod.) 15			RT, GR, ETC.)*	19. ELAY, CABINGIDAD	
7-14-67	. mm 61 mrss pro-	7-19.		IPLE COMPL	7560	INTERVALS	BOTARY TOOLS	CABLE TOOLS	
20, TOTAL BEPTH, MD	3050		AIK WOH		. A .	DRILLED BY	All		
3864:	YAL(S), OF THIS COMP	LETION—TOP, B	TOM, NAME (M		* :			25. WAS DIRECTION.	AL
28601 - 2		mosa In		•					
							9 % 5 3 + 3	7. WAS WELL CORED	10°
26. TYPE ELECTRIC A	ND OTHER LOGS RUN			 09		С	- 2000年 1000年 1000	NO.	10
Sonic-Cal	.ipers - Gam	ma kay,	Tudneri	ou-FT9	CELTO	Camen	t Eond		<u> </u>
28. i	WEIGHT, LB./FT.	CASING DEPTH SET	RECORD (Repo	LE SIZE	ya aet in we		G RECORD-	AMOUNT PULLE	\$D
10-3/4	40.5	323		3/4	200	sacks		None	<u> </u>
7	20	3159		3/4	700	sacks	11111111111	None	1 2 2
							<u> </u>		7.5
7 1		<u> </u>		: -	1 20		TUBING RECO		1 max
29.		R RECORD	ACKS CEMENT	SCREEN (30.	SIZE	DEPTH BET 1MD		4D)
BIZE	TOP (MD) BOT	1031 (AR) 8	ACRB CEMENT	SCHEEN (3-	1/2	2762	None	
None					1 3 5 1	<u> </u>		# Har 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
31. PERFORATION RE	COBD (Interval, size ar	d number)		32.	74 17 1			SQUEEZE, ETC.	
28601-28	85' 4 jets,	ft.			NTERVAL (3			OF MATERIAL USED	
0.468, 1	00 holes			2860	-2942			000 gala	
28851-29		T.				146		1678.	Antr c
0.50".5	1 HATES.						<u> </u>		
33.*				DUCTION			医复数毒毒	- 1일 - 1일 등 1일 등 4일 등 4일 등 1일 등 1일 등 1일 등 1일 등	
DATE FIRST FRODUC			owing, gas lift, p		ze and type	of pump)		STATUS (Producing or	_
7-19-67			Reda Pu		<u>. 1:4 l</u>	110 110	wlown	Produc	
DATE OF TEST	HOURS TESTED	None None	PROD'N. FOR TEST PERIOD	1851		135	WATER ABE	73 3/b	bl
7+23-67	<u></u>		OIL-BBL.	·	-MCP.		ER—BBL	OIL CRAVITY-API (COR	
U.5	O O	CALCULATED 24-HOUR RATE	1851		135		0	43.3	
34. DISPOSITION OF	GAS (Sold, used for fue	l, vented, etc.)				10	TEST WITNES		
Vented.					181	13/1	Gary E.	, Roth	
35. LIST OF ATTAC	HMENTS			Z	Y R	See See	λ		
	An		faumatien is as	mlas / S	AUÉ	OC/VE/	Aw All neattable .	Peords 3 2 8 2 8	·
36. I hereby certi	ty that the toregoing a	no arta ded in	formation is com		ATE	70x	The direct divining to		·
SIGNED	111.	un	TITLE _	Produ	Ortion	Guil.	DATE	7-31-67	·
	***	······	J C f	<u> </u>	7 D. O	Jag C	SANTER I	4: 44-543034	
~ ^ ^	*(See li	nstructions dr	d Spaces for	Maaili Gut	naia o	II. IABLEIZE	Olde)		
(1)	•			`	\' \		•		

	to either a Federal agency or a State agency, of this form and the number of copies to be, or may be obtained from, the local Federal core analysis, all types electric, etc.), formatate laws and regulations.	Consult local State attachments, show the producing lequately identified, ting tool.				TOF THUS VENT, DISPER			72 14 12 14						* . * <u>* *</u> * 3 *
	deral agency or nd the number stained from, t all types electi regulations.	irements. Col and in any att in item 24 sho his form, ndeq f the cementing we.)			GEOLOGIC MARKERS	MEAN. DEPTH			·.				· · · · · · · · · · · · · · · · · · ·		
	General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, both, pursuant to applicable Federal and correct well completions. Any necessary special instructions concerning the use of this form and the number of copies to be both in the local federal submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will it issued by, or may be obtained from, the local federal and/or Shub office. See instructions on Herman 24, and 38, below regarding separate reports for separate completions. If not fine office, the time this submitted, copies of all currently available logs (drillers, geologists, sample, and regulations, All attachments the particular rections is surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments	should be listed on this form, see teen 35. Hem. 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Hem. 4: If there are no applicable State requirements, locations or Federal office for specific listructions. or Federal office for specific listructions. Hem. 4: If there are no applicable State requirements, locations and in any attachments, or Federal office for specific listractions. Hem. 5: Indian State in the Form and in any attachments. Hem. 2: Indian State in the Form, and in any attachments for only the interval reported in item 38. Submit a separate report (page) on this form, independent of the indian state report (page) on this form, independent of the cementing the additional data, pertinent to such interval. for each additional interval of the cementing fool. If the 2: 'Scalar Chicken's Chicken's Chicken's form for each interval to be separately produced. (See instruction for items 22 and 24 above.)	9.19	i e	OBOLOG	NAMB ,					i d Sh				
	of lands and meeraling the will to iss mpletions. grists, sampl	in according ven in other upletion), so the separat a separat age cementi		*	INCLUDING 138.		<u> </u>		. 1 - 2 -	. <u> </u>				- XX3	
	n all types (ructions ecva below or separate con cillers, geold applicable	rements grantified out 183. Submittel standards and multiple standards and standards a			TRETE,		19 ***				13. 2		•		_
	UCTIONS n report and log on all type ssary special instructions se, either are shown below arate reports for separate avuilable logs (drillers, ge avuilable required by applicab	repth measured in the solution of the solution	<u>.</u>		LL DHILL-STRM ?	ENT'S, BTC.				ر ماريخ المراجع ماريخ المراجع		<u>:</u>	• d ⁻ 1	Î.	 <u></u>
	TRUCT letion report necessary cities, eith separate re	Indian land own) for d n one inter- erval repor ata pertine low the det		e dage Lijas e	AND A	DESCRIPTION, CONDENTS,	W.			1860 1860 1860		÷.		 Ju	
	well completion fluss. Any necession and practice result in the completion of the co	redoral or herwise sh n more that mly the int delitional d all should sh nterval to		ere in	COURD INTERVA			بدي درينس د		· · · · · · · · · · · · · · · · · · ·			24 Tu		-
	ind correct and regula all procedu (d'83, below red, coples artiched th	ntions on liveron for inction from any for or wing the men for for for this we for this we for each f			HARMON CORE						Tantala.	ing to the second secon		gina gTar ≱ilyaa	17.43 .5
•	complete e	menta, loc menta, loc marate province(s), (li me(s), (li duced; slo al records	 (화생 (화생)	4 1 0 K 3 <u>1</u>	T SULTROLLES	, N					• : 1	1 \4 C	\	a 1864 1841 50 Tr	1
	ibmitting a al and/or & i local, arei on thems 22 nair recort al survoys,	n 35. Tate requirents in a second of the second in a		in the second	NOBITY AND	HOTTON						, (C)			andra (in the second control of the second c
	gned for stable. Redering the regard to the structions of this sum of directions of di	m, see tter pplicable Si instructio levition is ell is compl s) bettem il to be see Attached a		1000 1000 1000	ZONES:	TOP		•6 •8			2 (16) 2 (16) 2 (17)		entre de la companya de la companya La companya de la companya de		Yele Same
	rm is desti it to applic cularly wit ice. See in ice, see in	on this to for specific to which el If this won'n this won'n the top on the top	a decidad a a		UNGMARY OF FOROUS ZONES: POROSITY AND CONTENTES THRINGS HIGH. MICH. ALL IMPORTANT ZUNES OF POROSITY AND CONTENTES THRINGS IN MICH.	TERVAL TEST		<u> </u>	7 <u>3.</u> 	بي <u>الخرين</u> مام	, . <u>Elitab</u>	<u>ئ</u> <u>1 رفيد (م</u>	at <u>Nich er lief be</u> Lief er	<u> </u>	<u> </u>
	ral: This fo th, pursuan itted, parti or State offi the filed prior	id be listed 4: If there deral office 18: Indica 72 and 24, val, or interest ach adultion 29: (Sacks	as: Should		37 SUMMARY O		. #	رادوی در	य केल. स्थान	- 3 e . - 3 e .	er Karana Tangan		i na k		
	Gener or bot and/c if not	Should be on the should			2. S		Variable Variable	្រ 50 ខ	 গীবছর্ম	ql bac	anolis:	ola del se	(3) (3)		

U.S. GOVENNMENT PRINTING OFFICE: 1963—O-683636

Ü

·.	÷						AF	<i>12.</i>
	75.151 FE	ST AND REQUEST I	OP ALLOWA	RIF_(WELLS			
PO	TENTIL TE				11220			
Work	- ISO	DESIGNATE TYPE O	Plug		Same	[X]	Different	\Box
New Well L over	X	Deepen L_	Back		Reserve	pir 1991	Reservoir	
Other Reason For Filing:								
Operator M. C. a. C. amp ome	tion							
Kerr-McGee Corpora	161011							
215 Petroleum Cent	ter Bldg	<u> </u>	gton, New	w Me	<u>xico 87.</u>	<u> 1:01</u>		
		DESCRIPTION OF W	ELL AND LEAS	E				
Federal, State or Indian Lease Numb			Well Name Navajo	doll.	No 1		Apache	
14-20-0603-8823		Navajo	Navajo		:(U = I		- i iipaoiio	
Footage Location 6601 FSL and 2000	FWL of	Section 32						
Sec. Twp. Rge. Sec. 32, T36N, R3	∩ E]
Date more workover	Date complet	ted, ready to	Total depth			P.B.T.D.		
7-14-67	produce 7-	-19-67	3864	t	<u> </u>		3050 1	
Field and reservoir		Hermosa	Top of pay 2860	, 1			1-29421	-
Dineh-bi-Keyah		TEST I						
Date Continue Date	of test	Length of tes		Produci	ng method (flo	ow]	Amount of load o	ii
Parc of mor production	23-67	24	hrs.	pump, g	as litt)Pump		Amount of load o injected if any. NONE •	
Number of barrels of oil produced in recompletion date to test date	from completion	n er	If well is produ and strokes per	ced by p minute.	numping, give	pump si:	ze, length of strol	ce
Tubing pressure	1 100	Casing pressure			Choke size	<u>~~P • </u>		
45		0			No	one		
*Actual production during test:	Oil (bbls) 1851.(_	Water (bbls)	C	,	Gas (M	CF) 135	
1851.0 *Production must actually equal or			must be for full 2		<u> </u>			
					Name of tra		of oil	
Gas-oil ratio 73 CF/bbl.	*XXXXXX	Oil gravity 43•3	* A.P.I. cor	rected	Kerr-Mo	cGee	Pipeline	Corp.
Number of acres attributed to	Number of	producing wells in this	Single, dual or completion?		<u>'</u>		llowable requeste	
this well	this well	this lease, including	Single	_		(00.5)		
Plat showing acreage attached—p	lat should show	9 w leases, offset wells, d			o the nearest	well on	the same lease	completed
Plat showing acreage attached pin or drilling to the same reservoithe same lease completed in or d	r, and the bour rilling to the s	idaries of drilling and p ame reservoir, the num	roducing, or pro ber of acres in e	ration, a ach uni	units attribute t and the num	ed to thinber of a	s well and other cres in the lease.	wells on
CERTIFICATE: I, the undersigne	d, under the p	enalty of perjury, state	that I am the	Pro	duction	Sop	t	of the
Kerr-McGee Corpor	ation	(company), and	that I am author	nzed by	said company	to mak	e this report; and	I that this
Kerr-McGee Corpor	ervision and di	rection and 9at In fac	ts stated thereib a	re july.	correct and co	mplete	o the best of my k	nowledge.
n 23 /2	/.	Dros A	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	/	1 1		els	
7-31-67 Date	/ <u>C</u>	AUG 2 100	Signatur	e e	<i></i>			
	(19	STATE 2 1967	E					
		CO 0 & 0	T					
Witnessed by: Kerr-McG	ee Corb	E COMM.		F #- C *	STATE OF		ONA N COMMISSIOI	vi
$\mathcal{Y}_{\mathbf{z}}$	Rath	(1)	Y . UI	L&GA	15 CONSER	VALIO	N COMMISSION	·V
1 day	Signature	11817.	Po	otential '	Test & Reques	t for All	owableOil Well:	5
7-31-67					- -			
	Date				File O	ne Copy		
Permit No 377			Form No.	E				•

<u>}</u> @

U

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

- 	Form approved. Budget Bureau No. 42-R714.4.
ALLOTTEE	
TRIBE	Navajo
Lease No	74-20-0603-8823

LESSEE'S MONTHLY REPORT OF OPERATIONS

•	iger Far	t's	<i>addre</i> gton	ss Net	21 w Me	5 Petr xico	oleum Cent 87401		ilding Con		Gerr-McGe Ida	y Both
				-							Product	ion Engineer
:	SEC.	AMED I	Twr.	Range	Wait.	Dava Pacestra	BARRELS OF OIL	GRAVITI	Cv. Fr. or Gas (in thousands)	CALLORS OF CASCURE BECOVERED	BARRELS OF WATER (If Done, so state)	BEMARKS (II drilling, 'dopth; if alant down, cause; date and result of test for gamline acounts of gas)
E	SW :	32	36N	30E	1	25	Frac 1 pump (1851] will 1	vith (on 3-1 0/24 on sub	/2" tubing	ons of c set @ 2 API, 73 soon as	rude, 30 762 on ft.3/bb run figu	erf from 2885° - 2942°, 000# sand. Ran Reda 7-23-67 well tested . Production data res are received from fied.
E	NW ;	32	36N	30E	2	31	Produc are re	tion ceive	data will d from Per	be submi mian Cor	tted as poration	soon as run figures and have been verified
E	SE	32	36N	30E	3 X	29	tt	,			!	
E	SW	29	36N	30E	7	28	Ħ					
SΕ	SE	30	36N	30E	9	28	Ħ				. ,	
SE	SE	31	36N	30E	5	None	No ac suspe	tivit nded	on this -21-67.	ell in	uly, 196	7, operation
SE	NE	31	36N	30E	6	23	well	-1/2" teste BS&W.	d 163 BO/2	BH pum hrs, 4	, set @ 2.60 API	3642°. On 7-11-67 , 135 ft.3/bbl GOR,
SE	NW	31	36N	30E	1 1	23	Frac tubir	ith g set	0,000 gal @ 3820'.	s. crude Flow te	& 30,000 sting we	0 # sand. Ran 3-1/2"
SE	SW	30	36N	30E	15	17	had in the crude	ben s	set @ 3159' zone from 30,000# sa	This 3159 -	3225 . Reda pu	o tool unit. 7" casing open hole completion frac with 60,000 gals. mp on 3-1/2" tubing.
	·								,			3118117
•		Nor	e.—Tì	ere we	or	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			or sales of oil; . ng the month.		/ 95	M. M. the of garage;

311

O

5.00<u>0</u>000000

Hone 7-28-67 20 De from Bud Williams

#1 Making 1400 Bopd

#

e e

-

UNITED STATES DEPARTMENT OF THE INTERIOR Cores dates represented by GOLD STATES DEPARTMENT OF THE INTERIOR Cores dates represented by GOLD STATES (In set set this Story for Appropriate of the State				
DEPARTMENT OF THE INTERIOR trans allowed to the Control of Control of the Control		Cin	s C	المناف
SUNDRY NOTICES AND REPORTS ON WELLS (The not use that by a processing of the company of the com	m 9-311	UNITED STATES	SUBMIT IN TRIPI	Porm approved. Budget Bureau No. 42-R1424.
SUNDRY NOTICES AND REPORTS ON WELLS (Do not use this time for preparation of the principles of the pr	DEF	PARTMENT OF THE I	NTERIOR verse side)	6. LEASE DESIGNATION AND SERIAL NO.
(Observed and the form to be proposed to deliver the form of the proposed to the propo				6. IF INDIAN, ALLOTTEE OF TRIBE NAME
OFFILE DEX WILL. OFFILE OFFICE OF OFFILE OFFICE OF	SUNDRY (Do not use this form form	NOTICES AND REPU	ORIO ON WELLS or plug back to a different reservoi	E STATE OF THE PROPERTY OF THE
THE WALL OF CREAM OF THE PARTY	Use "	APPLICATION FOR PERMIT	for men higherna	1 3" ONIT WARROWSEL SAME
MAYALO 22 215 Petroleum Genter Bldg Farmington, New Mexico 215 Petroleum Genter Bldg Farmington, New Mexico 216 Petroleum Genter Bldg Farmington, New Mexico 216 Petroleum Genter Bldg Farmington, New Mexico 217 Mayal Recition during and its accordance with any Baist requirements. 218 Petroleum Genter Bldg Farmington, New Mexico 219 Mayal Recition during and accordance with any Baist requirements. 219 Mayal Recition during and accordance with any Baist requirements. 210 Mayal Recition during and accordance with any Baist requirements. 211		OTRES.		8. PARM OR LEASE MAME
DESCRIPTO OF WILL (DEPOT LEGISLA CHAPTY LAND IN ACCOUNT OF WALL OF WALLAND OF		oration	·	NAVAJO PER
Comparison of the performance			rmington. New Mex	
Are series 5600' FSL & 2000' FWL Sec. 32, T36N, R30E Apache Co., Ar120NA Sec. 32, T36N, R30E Apache Co., Ar120NA Sec. 32, T36N, R30E Sec. 32, T36N	LOCATION OF WELL (Report	location citarly and in accordance	with any State requirements.	
Apache Co., Arizona Sec. 32/736N,R30E TRANSPORT OF PRINTED TO. TO. 377 Check Appropriate Box To Indicate Noters of Notice, Report, or Other Order SOURCE OF SPERIFICOR TO: THEY WATER SHUPOUT TO. THEY WATER SHUPOUT TO	At surface			
State No. 377 The property of particle of the property of t	000, 12F & 500	Apache	Co., Arizona	Sec. 32, Took, noon
Check Appropriate Box To Indicate Noters of Notice, Report, or Other Dates in the Color of the Color of the Dates in the Color of the Dates in the Color of the C		15 RESTATIONS (Show	whether DF, ET, GR, etc.)	12. COUNTY OR PARSON 13. STATE
Check Appropriate Box To Indicate Noture of Notice, Report, or Other Date NOTICE OF INTERTED TO: ***SUBMODING*** ***PACTURE SHAPPONTO*** ***PACTURE TRAINFEST TY TYPE TRAINFEST TRAINFE	= = :			Apache as Arizona
THEY WATER SHOTOFF PRACTORS TREAT SHOOT OR ACTORS REPAIR WALL (Other) Control or Recombleton Report from the minimum of the minimum or actors and the minimum of the minimum or actors shown or shown or actors shown or actors shown or actors shown or actor shown or actors shown or actors shown or actors shown or actor shown or actors shown or actors shown or actors shown or actor shown or		heck Appropriate Box To I	ndicate Nature of Notice, Rep	ort, or Other Pate
THE WATER SHAFT SHOOT OR ALTHE CHAPTE SHOOT OR ALTHE CHAPTE SHOOT OR ALTHE SHAFT (Other) Perforation or Courtered or Area Plans (Other) Completion or Recompletion Report and Log formal Moved in double drum unit and pulled 2-7/8n tubing and Reda Tumple Perforated with 1 jet/ft from 2885'-2942'. Ran 4-1/2m OD Casing And Packer to 1315' and set packer. Frac with 62,000 gaillons of 1 lease crude and 30,000# 10-20 sand. Used Adomite Mark: Il and 1405 ball sealers. Max. pressure: 3000 psi. Ave. Treating of the Shaft of Shaft				The state of the s
SHOOTED ALCEDES SHOOTED ON ACCIDENT SHOOTED ON ACCIDENT SHOOTED ON ACCIDENT SHOOTED ON ACCIDENT (Other) Perforating (Other)	TEST WATER SHUT-OFF	-	(——)	
(Other) FUND TALLING (Other) (Other)	<u>-</u>		SHOOTING OR ACH	ABANDORNENT
Describe Proposed on Configurations (Clearly state all pertinent details, and give per	· · ·	- i	(Other)	the secondary of the secondary of Well
Moved in double drum unit and pulled 2-7/8" tubing and solve the self-pulled property of the self-pulled property	(Other)	Clearly state	I Completion	UP KINCOM DISCHOLL MEDULE STATE TOOL TO THE TOTAL TO THE TOTAL TOOL TO THE TOTAL TO T
Moved in double drum unit and pulled 2-7/8" tubing and Reda Pumpy	 DESCRIBE PROPOSED OR COST proposed work. If well nent to this work.) 	LIBARD DARRELIONS (Citativa areas		
SIGNED (Tale space for Federal or State effice see) APPROVED BY CONDITIONS OF APPROVAL, IF ANT:	Moved in doub Perforated wi	ole drum unit and	pulled 2-7/8" tul	oing and Reda Pump of E
	and packer to lease crude a	ole drum unit and th 1 jet/ft from 5 1315' and set p and 30,000# 10-20	pulled 2-7/8" tul 2885'-2942'. Ran acker. Frac with sand. Used Adom 3000 psi. Ave.	oing and Reda Pump of the Mark II and 146 Ireating Pressures II and 146 Ireating Pressures II and 146 Ireating Pressures II and III an
	Perforated will and packer to lease crude a ball sealers. 2500 psi. At 18. I hereby certify that the SIGNED (This space for Federal Approved BY	ole drum unit and ith 1 jet/ft from 1315 and set pand 30,000# 10-20 Max. pressure: ve. Injection Rate foregoing is the ed correct or State edice use)	pulled 2-7/8" tule 2885'-2942'. Rancker. Frac with sand. Used Adom: 3000 psi. Ave. Se: 58.3 BPM.	co flow riskles of process of process of the set of the
1. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Perforated will and packer to lease crude a ball sealers. 2500 psi. At 18. I hereby ceptry that the SIGNED (This space for Federal Appropriate BY	foregoing in the state correct or State office use)	pulled 2-7/8" tule 2885'-2942'. Rancer. Frac with sand. Used Adom: 3000 psi. Ave. Se: 58.3 BPM.	co flow riskles of process of process of the set of the

37

<u></u>					
OPERA	TO CERTIFICATE OF		CE AND AL DRI	ZATION	
THE CONTRACT OF THE CONTRACT O	<u>.</u>		Deser	vale	
Sederal, State or Indian Lease Number or lessows name it fee lease			i		
14-20-0603-6823 Survey or Sec-Twp-Age	Dineh-bi-	<u>Keyah</u>	State	wer Hermosa	
Sec. 29-32-T36N-R30K	Apache	<u> </u>	l_Ar	izona	
_{Decrator} Kerr-McGee Corporation					
A	DORESS ALL CORRESPOND	ENCE CONCE	RNING THIS FORM		
215 Petroleum Center I	.)	1	Nev	Mexico 87401	
Above named operator authorizes (na	me of transporter)				
Kerr-McGee Pipeline Co	orporation Atter	ntion: Mr	. A. R. Gockel State		
Kerr-McGee Building	Oklahoma C	lity	_0k	ahoma 731.02	
Field address	Non-Manage	พรโ.คา			
P. O. Box 989 - Farmin	Oil, condensate	gas well gas.	easinghead gas		
	Fattha -27			from said lease.	
To transport 100	GATHERERS TRANSPORTI	NG FROM TH	IS LEASE ARE AS F		
Name of gatherer		ransported	Product transporte		
			 		
					•
	•				
The undersigned certifies that the rul drilling and producing operations on percentage of the allowable oil or ga	ode belowkee treases ascol sidt	sve, and inat fi	he above transporter i:	authorized to transport the	above specim
percentage of the allowable off or ga or until cancelled by the State of Ar	zona Oil & Gas Conservation	Commission.	rty, ma mer ms and	·	
CERTIFICATE: I, the undersigned, u	nder the penalty of periuty s	state that I am	the Productio	n Superintendent	of t
Kerr-McGee Corporation				company to make this repo	
report was prepared under my superv	ision and direction and that th	ie facts stated t	therein are true, corre	t and complete to the best o	f my knowledi
	. E.		a		
- 1 /				10/11	
7/19/62			(16)	Man	ثرسيه
Date		_	Signature		
1.7/.	le 7				
Date approved: / / / / / / / / / / STATE OF AF	IIZONA		177		
OIL & GAS CONSFIEVAT	ION COMMISSION		THE THE PERSON NAMED IN COLUMN TO SERVICE OF THE PERSON NAMED IN COLUMN TO SER		
By JOHN JOAN	111167		STE TO		
1.311		T	ONS TAR IS	<u>)</u>	
Perinit No. — 1 1				YTE OF ARIZONA	
		日	S consider a County	NSERVATION COMMIS	SION
		不到	Separator's Cortul	ite of Compliance & Authorizort Gil or Gas from Lease	zation to
		Y (§	TITTE	File Two Copies	
		For	m No. 8	-	
		I			

C

	,	, m	
Form 9-331 (May 1963)	UNITED STATES DEPARTMENT OF THE INTER GEOLOGICAL SURVEY	SUBMIT IN TRIPLICATE* (Other instructions on re-	Form approved. Budget Bureau No. 42-R1424. 5. LEASE DESIGNATION AND SERIAL NO. 14-20-0603-8823
SUN (Do not use this	DRY NOTICES AND REPORTS form for proposals to drill or to deepen or plug Use "APPLICATION FOR PERMIT—" for such	ON WELLS back to a different reservoir. proposals.)	G IP INDIAN, ALIOTTEE OR TRIBE NAME
OIL WELL CAS WELL	OTHER		7. UNIT AGREEMENT NAME 8. FARM OR LEASE NAME
Kerr-McGee			NAVAJO
215 Petroles 4. LOCATION OF WELL (1) See also space 17 bel At surface	um Center BlugFarmingt Report location clearly and in accordance with an low.)	on, New Kexico	10. PIELD AND POOL, OR WILDCAT Dinch-bi-keyah
	2000 FWL Apache Count	y, Arizona	Sec. 32, T36N, R30E
14. PERMIT NO.	15. BLEVATIONS (Show whether	DF, RT, GR, etc.)	12. COUNTY OF PARISH 13. STATE
State No. 3	77 7564 GR		Arache
16.	Check Appropriate Box To Indicate	Nature of Notice, Report, or	Other Data
	NOTICE OF INTENTION TO:		WENT REPORT OF
TEST WATER SHUT- FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL		WATER SHUT-OFF PRACTURE TREATMENT SHOOTING OR ACIDIZING (Other) (NOTE: Report result	REFAIRING WELL ALTERING CARING ABANDONMENT B of multiple completion on Well pletion Report and Log form.)
proposed work.	OR COMPLETED OPERATIONS (Clearly state all pertit if well is directionally drilled, give subsurface k	details and also postinger date	neluding estimated date of starting any
Full 2-1/2885 to	12" EUE tubing and Reda I 2942'. Run 4-1/2" casi	Sump on 7-14-67.	anoibuntani anoibuntani anoibuntani aliorated Trom aliorated Trom alionation alionat
ture tres	at with 60,000 gals. of	TAUDE OF HOR OTHE DE	

TITLE Production Engr.

*See Instructions on Reverse Side

ret.

Run Reda pump on 3-1/2" EUE tubing.

18. I hereby certify that the foregoing is true and correct

(This space for Federal or State office use)

APPROVED BY PROVAL, IF ANY:

CHIEFEL S

energangs

From the Desk of

JOHN BANNISTER

7-13-67

per gerny Poti - Kerr Miga

Farming

Recompleting #1

will perf. 2885-2942

w/ 1 shot per ft.

sel 41/2" Casing w/ packer

frac 1-0,000 gal-3000 a sand

pull casing clean oul -

Sto

O

2022023

ं -15-05-12-12**-12**

> (: 5-10-67 Ban 24 hr that on 4-26-67 prope 755 BO + 73 MCF 97 GOR 43.7 9raw

.,

WELL SITE CHECK

Вv	T. Y	3
Date_	4-2	1-67

Contractor		Person(s) Contacted
Spud Date	Rotary	
Type Rig	Cable Tool	Present Operations
Samples		Air
Pipe		Drilling with Mud
Water Zones		Size Hole
Lost Circ. Zones		Size Drill Pipe
Formation Tops		Type Bit
Cores, Logs, DST		No. Bit Drilling
		Formation
Crews		Lithology

At location too late for pictures. Jock still standing by hale but Reda pump in hole and being used. 14 1000 Bl. tanks on location with bose fixed for 4 more. It is planned to bring production from #3 & from B wells to this site for loading, pending construction of tank furm in NE of 24-36N-30E.

Location Good - painted - well kept - proper signs up however no Permit No. Snown.

will go tight.

WELL NAME Kerr-Mc Geo # 1 Navajo SESW 32-36N-30E 660 FSL 2000 FWL

Permit No. 377 Confidential: yes Wo

 \mathbf{C}

Field		-	verr - acces control and				County								- -	4-20-67	-67
44.44	Verrah			•				1	Apache	-		9,000	Datum	Datum Plane	Ö	Gas Gravity	
Producing Formation Oil	Oil Gradient		-	Water Gradient		Initial C	Initial Completion*		c[#]*	<u> </u>	Coneru survey	r ABA	++	1201			
Hermosa	₹. 0	4		1 1		_ - -	×	The Taket	etal	_		Sonic Ing	Sonic Instrument Test Data	est Data			Pressure
Well Name	ilmin OM	Well No.	70 (O) I (Đ) 22i	Date Tested	Shut-in SmiT	Shut-In Tubing Prossure	Tost Depth	B.H. Temp.	Observed Pressure	Prod. Test (Bbls per Day) Oll Wate	1.	Liquid	Liquid Gradient		Wt. of Gas Column	Cusing	At Datum
wavajo #1	377	++	20 II	3-8-67		0				634.12		1912•	±€.0	650	ī	0	وين)
TOTAL OF THE STATE	2 1 1 1 4 1 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1																<u></u> :

April 21. 1967

0

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Reservoir Pressure Report
File One Copy

Form No. 1

4-3-67 Telcon w/Otto Barton

Re: Kerr-HcGee #3X

TD 3600

Perforated: 3427-3457, I shot per foot.
1500 gals. acetic acid into formation. Got small show of oil and of gas. Then acidised with 1500 gals. of 3% hydrofleuric acid. Glush of oil came back; but settled to 1-2 barrels per hour. Then fract wit. Put 5500 gals of in in front of the fix fract--15000 1hs sand and 30000 gals. load oil; pressure 1700 lbs. Swabbed 4-2-67, 1700 thm.barrels in 11 hours. Should get rest? of fract today; test tomorrow.

Re: Kerr-McGee /81

Came in way high.

Cored 3678-3762. 28 feet of core looks good; bottom 2 feet are shale.

Started setting pipe last night, 4-2-67, and finishing this morning. 7° production to TD of 3850.

Re: Kerr-HeGee #7

Spudded 3-29-67 at 8:30 p.m.

Surface pipe $(10-3/4^{\circ})$ set to 473.73 KB with 500 sex common cenest.

Brilling now at -16745.

Have had a couple of fishing jobs -- trouble at bottom of Coconing.

4-1-67 4-2-67
Navajo Production 318 836
P2 Havajo Production 3,013 3,000+ (wasn't sure of exact)

0

Pressures on these wells have not changed; nor has gas/oil ratio.

31

Y

3-28-67 Telcon, Otto Barton, Kerr-McGee

Re: Kerr-McGee #7 Navajo SE SW 29-36N-30E, Apache County Permit 389

Will move in rig today. Casing program changed from 9-5/8" to 10-3/4".

Re: Kerr-McGee #3A Navajo SE SE 32-36N-30E, Apache County Permit 386

Cored and set 7" j55 71b. pipe to 3582.7 KB. Cemented with 150 sax. Hole size at that depth is 8-5/8".

Cored 54 feet--received 28 feet good pay section. Last 2 feet of core is shale. Expect to come in like #1 Navajo.

Re: Kerr-McGee #1 Navajo SE SW 32-36N-30E, Apache County Permit 377

Making about 700 BPD with new Reeds pump.

Pump is pulling well faster than hole will fill up; so running about 45 minutes, shutting down pump for about 30 minutes, and then starting up again.

Contemplating new fract job.

Re: Kerr-McGee #2 Navajo SE NW 32-36N-30E, Apacho County Permit 379

Making right at, but has not made, 3000 BPD.

Re: Kerr-McGee #B1 Navajo SE NW 5-35N-30E, Apache County Permit 381

Drilling slow. Rig too small for altitude and bigger rig is being brought in. Small rigs will be released.

O

3-13-67

Telcon w/Joe Breeden, Kerr-McGee

Re: #1 Navajo Permit 377

0800 gauge this date showed 606 barrels produced

Re: #2 Navajo Permit 379

Reeda pump installed. Started pumping Sunday, March 12. In 24 hours pumped 2,856.5 barrels.

Bottom of pump at 2590; as nearly as can tell top of fluid is at 1100 feet. Pumping did not lower level of fluid.

Re: #B1 Navajo Permit 381

drilling at 1,668 this morning.

Drilling contractor: Garmack Drilling Company, Grand Junction, Colorado

O

- Servered

al expersion

		service de la companya del companya de la companya della companya	
		9-67 Otto Backon (telephone)	
	3	9-67 Offo Chilton (conjunt)	
		#1 Muajo - has 4 tanker (500 BUS) in service.	
		#1 /Quajo - mas	
		in account of the second of th	
٠			
			ġ:s
			•,•
•			
 11			
,			
,			
1			
•			
		22	
		1317	
	14		
	1 \		

3-7-67

The war said

Telcon with Joe Breeden, Kerr-McGee

Re: #1 Navajo Permit 377

will be running some/fluid level tests in near future. Will keep us posted.

Production: 3-2-67(8:00 a.m. gauges) 588 barrels
3-3-67
3-4-67
3-5-67
3-6-67
3-7-67
573

ค

Jease lavajo 14-20-0603-8823 Survey or Sec-Twp-Rge Sec 32, T36N, R30E Departor ADDRESS Street P.O. Box K Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	City City Midland	R GAS FROM LE	ASE Reservoir Pennsylvanian Lower Hermosa State Arizona
Javajo 14-20-0603-8823 Survey or Sec-Twp-Rge Sec 32, T36N, R30E Operator ADDRESS Street P.O. Box K Above named operator authorizes (name of treer of the component of the c	Field Wildcat County Apache ALL CORRESPONDENCE City Sunray Cansporter)		Reservoir Pennsylvanian Lower Hermosa State Arizona RIS FORM TO: State
Navajo 14-20-0603-8823 Survey or Sec-Twp-Rge Sec 32, T36N, R30E Operator ADDRESS Street P.O. Box K Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	ALL CORRESPONDENCE City Sunray City City City	CONCERNING TH	State Arizona US FORM TO: State
Survey or Sec-Twp-Rge Sec 32, T36N, R30E Operator ADDRESS Street P.O. Box K Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	ALL CORRESPONDENCE City Sunray Causporter)	CONCERNING TH	Arizona US FORM TO: State
Sec 32, T36N, R30E Operator ADDRESS Street P.O. Box K Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	Apache ALL CORRESPONDENCE City Sunray City City	2 CONCERNING TH	IIS FORM TO:
ADDRESS Street P.O. Box K Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	ALL CORRESPONDENCE City Sunray cansporter)	CONCERNING TH	State
Street P.O. Box K Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	City Sunray Gity City	CONCERNING TH	State
Street P.O. Box K Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Fleid address Farmington, New Mexico	City Sunray Gity City	CONCERNING TH	State
P.O. Box K Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	Sunray ransporter)		
Above named operator authorizes (name of tr Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	City		lexas
Permian Corporation Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	City		
Transporter's street address 2003 Wilco Building Field address Farmington, New Mexico	_		
2003 Wilco Building Field address Farmington, New Mexico	_		State
Field address Farmington, New Mexico	Interesse		Texas
Farmington, New Mexico			
7.00	Joe Kenney		
100		gas well gas, casing	ghead gas
100			
To transport LUU	% of the Oil		from said lease.
OTHER GATHI	ERERS TRANSPORTING F	ROM THIS LEASE	ARE AS FOLLOWS:
Name of gatherer	% transpo	rted Product	transported
None			
		ļ	
certificate: I, the undersigned, under the per Karr-McGee Corporation	e, except as noted above, an ed from the above describe & Gas Conservation Comments of perjury, state that I	d that the above trains of property, and that dission. am the Div. Sup	inservation Commission have been complied with sporter is authorized to transport the above specific this authorization will be valid until further not solve the Gas Prod
2-28-67 Date CONSERVATION CON		Standalire (Sparlar
Date approved: 1624 WEST ADAMS - SUITE TELEPHONE: 271-5161 PHOENIX. ARIZONA. 850	<u>: 202</u> 1	By:	
Commissions 1	USLEY		
3-2-9/			FATE OF ARIZONA OIL & GAS

Effective_

PO'	TENT . TEST AND REQUEST	FOR ALLOWABLE	IL WELLS	
•	DESIGNATE TYPE O			
Re-entry Work-	- D - D	Plug Back	Same Reservoir	Different Reservoir
over over	∐ Deepen ∐	Dack	71000	
Other Reason For Filing:				
Operator				
Kerr-McGee Corporation Address	1			
P.O. Box K. Sunray, Te	exas	 _		
	DESCRIPTION OF W	VELL AND LEASE		
Federal, State or Indian Lease Numb	er, or Lessor's Name if Fee Lease	Well Name		County
14-20-0603-8823	Navajo	Navajo #1		Apache
Footage Location	T 0 5 11 00			
660' FSL and 2,000' FY Sec. Twp. Rge.	NL OI Dection 14			
Section 32. T36N - R3	0E			
Section 32, T36N - R30 Dates months: Re-entered	Date completed, ready to	Total depth	P.B.	
1-19-67	produce 2-1-67	3,864°	Prod	3,050 tiucing interval
Field and reservoir	Hermosa	2,860 ^t		360' - 2,885'
Wildcat			······································	
	TEST 1		g method (flow	Amount of load oil
Date of histories	of test Length of test	24 hrs.	ng method (flow ns lift) Pump	injected if any.
Number of barrels of oil produced for		If well is produced by to	umning give num	p size, length of stroke
	53 BB1	and strokes per minute. 2 1/2" Tog pump		L. 19 – 64" SPM
Tubing pressure	Casing pressure		Choke size	
had a section during took	50#	Water (bbls)	Gas	(MCF)
*Actual production during test: 634.12	634.12	0	{	35
Production must actually equal or	exceed wells daily allowable or test	must be for full 24 hours		-
	Oil gravity		Name of transpo	orter of oil
Gas-oil ratio	мсг/ьы. 43.5	* A.P.I. corrected	McWood -	_
Number of acres attributed to	Number of producing wells in this reservoir on this lease, including	Single, dual or triple completion?	Dai (bb	ly allowable requested
this well	this well	Single	,	635
80	at should show leases, offset wells, or	distance from this well to	the nearest well	on the same lease complete
in or drilling to the same reservoir	at should show leases, onset wens, to and the boundaries of drilling and silling to the same reservoir, the num	producing, or proration, unber of acres in each unit	nits attributed to and the number	this well and other wells of acres in the lease.
\				
2533 acres in lease	- wildcat discovery. Es	stimated 20 miles	s to neares	E WETT
commence and a state of the second and the second a	i, under the penalty of perjury, state	that I am the Div.	Supt. Oil &	Gas Prod. of the
i e				
Kerr-McGee Corporation	ON (company), and ervision and that the fac	I that I am authorized by : ets stated therein are true, o	said company to r correct and comple	make this report; and that this ete to the best of my knowledge
*okora ann brobaren anner må anke		M	7/2 \	\angle
2-16-67		_(<i>U1ta</i> C	Han	on
Date		Signature	, _	
				2119
(/N/E)	GOOD COLF			10
Witnessed by:	Organization	OIL & GA	STATE OF ME S CONSERVAT	UZONA COMMOSSION
		OIL & GA	0	22 EVE
	Signature	Potential T	Test & Request for	Allowabie-Oil Was
9-	15-107		ID	(S) (S)
~_/	Date	1	File Ope C	opy Zo
Permit No 377		Form No. 5	/	VETTES!
				~ U. 1 1 1 U /

Ø.

WELL SITE CHECK

By 2-13-67

	Date / 2-/3-6
Contractor	Person(s) Contacted
Spud Date Rotary	Mo Carton
Type Rig Cable T	Cool Present Operations
Samples	
Pipe	Air Drilling with Mud
Water Zones	Size Hole
Lost Circ. Zones	Size Drill Pipe
Formation Toys	Type Bit
Cores, Logs, DST	No. Bit
	Formation
Crews	Lithology
REMARKS, PROTO, MAP	
Delephone-	
	35 BO per Lr.
Pro Bures -	

WELL NAME Herr Mc Gee Navajo #1

Permit No. 377 dential: yes No ្រ

WELL SITE CHECK hole originally Person(s) Contacted Otto BAR ton Fisher Spud Date Rotary Present Operations install Type Rig (Two 500 bbl. Tan Samples IN 4 Can cul Drilling with Size Hole Water Zones Size Drill Pipe Lost Circ. Zones Type Bit Formation Tops Drilling No. Bit Cores, Logs, DST __ Formation . Lithology Crews Town of (Nelium Plant) Granite test.

Shippock (Nelium Plant) Granite test.

Penn Penn 2860-2885

in Penn 3 days approx. REMARKS, FROTO, MAP @ nate 24 /2 bb/s Oil per hour. Could not swb. to Reduce Fluid Level Red Rock Below 1600: Formation pressure approx 500-600#. Note: Come in from Lukachukai over mountain. Location Some mud-ice-snew- Road metal she well name term M'Gee too bad this time of not year-Pernit No. Confidential: yes

(OVER)

NOITASING TUA DNA 30 AUTROS TO STADIFICATION OPERATOR'S TO TRANSPORT OIL OR GAS FROM LEASE Navajo 14-20-0603-9803 wildcat Pennsylvanian Lower Hermosa Survey or Sec-Twp-Rge Sec 32, T36N, R30E Apache Operator ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO: State P.O. Box K, Sunray <u>Texas</u> Above named operator authorizes (name of transporter) McWood Corporation Transporter's street address Midland 2003 wilco Bldg Texas Field address Farmington, New Mexico, Joe Kenney
Oil, condensate, gas well gas, casinghead gas To transport from said lease. OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS: Name of gatherer % transported Product transported none Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. New Lease The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until or until cancelled by the State of Arizona Oil & Gas Conservation Commission CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Division Production Superintendent the Kerr-McGee Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge. Date approved: Commissione 's Number; **Executive Secretary** File No. STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION

Operator's Certificate of Compliance & Authorization to
Transport oil or Gas from Lease
Form No. P-17
File three copies
Authorized by Order No.

48-59

Effective_

April 6,

19 59

18

Verbal approval 2-3-67

				·					<u> </u>					
al.		. COMI	PLA ON C			ETION R		ANI	/ELL	LOG				
ENTRY (P)	k- 🗖	D	Plug Back		Same Reserv	[-]	Differ Reser	ent	Oil	\mathbf{K}	Gas		Dry	
ØF ▼ . OASL		Deepen		CRIPTI		VELL ANI								
erstor						Address								1
Kerr-McGee	Corporat	ion_				P.O. F		Sunra						
deral, State or Ind	lian Lease Nu		_0603_88		ease	Well Mum		Wilde			ennsy	lvan	ian_	
Navajo ocation		14-20	<u>-000)-00/</u>		1	Cou		112200						
660' FSL ar	d 2,000	FWL				A	oache							
ec. TWP-Range or			3 6-3	4 Dii	Von	444.00			•					•
Sec 32, T36	N R30E	te total d	and Sal lepth reached	Dat	e compiet	ed, ready t	o E10	vation	PT or G		Elevati hd. fla	on of	casing	
1-19-67	- BIVITHIBE	<u>1-25-</u> b.t.d.	67			_67		7 <u>,560 </u>	GR feet			feet		
otal depth	1			1		or triple co	mpletion	?	furnic pletic	alsa. haepa n.	iual or t rate rep	ort for	esch	com-
3,864		3,050 ompletion		<u> </u>	ingle	Rotary to	ols used	l (interval	 ,		tools us	ed (in	terval)	
2.860* - 2	885													
Was this well direct	ctionally drill	ed? Was		штеу п	nade?	filed?		ctional sur	Vey	Date	Dein			
No	No of electrical or other logs run (check logs filed with the			e commis	l No				Date	filed				
nduction_El					mma R	ay, Cem	ent B	ond		0c	t 22,	196	5	
					CASING	KECOKD		<u> </u>						
Casing (report all	strings set		Size casing			(lb./ft.)		pth set	8	cks ce	ment	A	mt. pu	iled
Purpose							•	134	_	₃ 20		·	None	
Surface	13 3/ 8 3/		10 3/4		40. 20		3.15	3! 9		70		-1	None	<u> </u>
Production	<u> </u>	7						•	-					
T	UBING RECO					18.		LINER F	ECORD	Leak	cement	l ē,	creen (
1	Depth set	ft. 2	kerset at R/LQ fL	Size	in.	Top	ſŁ.	Bottom Nene	£.	Dack.	. Coment			
2 3/8 in 1		ATION R						T, FRAC	TURE,	CEME	NT SQU	EEZE	RECÔ	RD
Number per ft.	Size & ty	type Depth Interval				Am't. & kind of material used Depth Interval						erval		
4	Jets 2,860 - 2,8		2,88	5•	358 gals Acetic A				cid 2860° - 2,885° 10,000# sand 2,860 - 288					
			· <u> </u>		TENTAT D	RODUCTION		5 011 8	£ 10,0)ho#	sand	۷,	000	<u> </u>
Date of first pro-	luction	Pro	ducing metho					umping—i	f pumpi	ng, aho	w size &	k type	of pur	np:)
1-27-67		ļ	Swabbing			Ţ. •	*		• •			•		
	rs. tested Choke size Oil pr		•	rod, during test Gas prod. durk				Water p		ring test bbls	منا	gravit 5. AP	y I (Corr)	
2-1-67	9 1/2 1 Casing p	TARRUFA	Cal'ted rate	242 of Pro-	bbls.	lUnkno	Gas	MCF		ater			s-oll r	
Tubing pressure	Casing p	-	Cal'ted rate	r 24 hra	611	bbis.		м	CF C	0	bbls	. Unl	cnown	<u> </u>
Disposition of gas	s (state whet	her vente	d, used for fu	el or so	id):	-								
Vented		<u> </u>		<u> </u>						_				
CERTIFICATE: I	the undersig	ned, ùnde	r the penalty	of perjur	y, state ti	hat I am th	e	Agent .					• • • • •	of the
W W-C-	o Compon	່າວວ່າ		(00)	mnanv). s	nd that I s	m sutho	rized by sa	id compa	ny to i	nake this	report	and t	hat this
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	red under my	supervisi	on and direction	b Blad	the fa	cts stated th	erein ar	e true, cors	ect and	omplet	e to the l	best of	my kno	wledge.
report was prepa	2 1067	3		1 1/2		\ -	-6	Q <	<u>3r</u>	ees	len	<u> </u>		
		g vi <u>∓</u> #	[40/2	19 C	346	ې چنو	nature —	T –						
February Date	1701		1	4.0	1	=								
	<u> </u>	-	ነል። የሰነ	~~	. •	1	•							
	 +7∨ℓ		हिं क	· C	3. I	-/								
February Date	<u> </u>	-	ST ST	700		力	OIT				IZONA		SION	
February Date	<u> </u>		S. S.	May G			-	& GAS	CONSE	RVAT:	ION CO	MMIS		ø
February Date	77		E S	IIZI)			Weil (CONSE	RVAT:	ION CO on Repor	MMIS		g
February Date	77		5 5	TIST!		For	-	& GAS	CONSE	RVAT:	ION CO on Repor	MMIS		g
February Date	77		S. S.	IIZI)		For	Well (& GAS	CONSE	RVAT:	ION CO on Repor	MMIS		g

Æ

O

to the first talk

i december

DETAIL OF FORMATIONS PENETRATED Description? Bottom Formation Shale 5731 Triassic Sandstone 573 to 1,260 1,305 5731 Permian Shale 1,260 - 1,305 3,127 1,305 Fennsylanian J 3,324° 3,690° 3,830° 3,127 Mississippian 3,324 Dévonian -3,6901 Cambrian 3,864 3,830 Pre-Cambrian 3,864 TD er imari Drill Stem Tests: DST#1 from 590'-617' TD. 5/8" bottom hele choke. No water cushion. Very weak blow which died in 10 minutes. I&FFP 13.1#. FSIP 22.8#. I&FHH 275#. DST#2 from 683'-695' TD. good blow immediately which died in 5 minutes. Recovered 10 gallons of-rotary mud. No pressures. DST#3 from 683 -700 TD. Good blow immediately which died in 5 minutes. Recovered 10 mud. No pressures. DST#4 from 683 -700 TD. 1 bottom hole choke and 120* water cushion. Fair blow immediately which died in 7 minutes. Recovered 380° of rotary mud and 120° of.water cushinn, IFP 190#, FFP 170#. FSIP 242#, I&FHH 320#.

Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

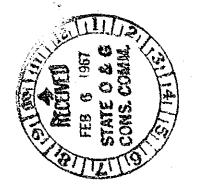
Affach drillers log or other acceptable log of well.

This Well Completion or Recompletion reportised well log shall be filed with the State of Arizona Office Gas Conservation Commission not later than thirty days after project completion.

ırm #-330					<i>f</i> *	1	•-		
ev. 5-63)		UNDED			IN DUPLICATION (Second	her in-	F. Be	em appe idget Bu	roved. reau No. 42-R355.5.
			THE INT	ERIOR	etructer reverse	ins on L	5. LEASE DES	IUNATION	AND SERIAL NO.
		SEOLOGICA	L SURVEY				14-20-00	603-8	823
WELL CON	API FTION	OR RECOM	PLETION R	EPORT A	ND LOG	*	6. IF INDIAN,	ALLOTTI	EE OR TRIBE NAME
TYPE OF WELL		L CAS WELL		Other			Navajo . 7. USIT ZGISI	Pribe	NAME
b. TYPE OF COMP									
NEW	WORK DEE	P- DACE	DIFF. C	other Re-eni	try		S. FARM OR I	EASE NA	NK.
. NAME OF OPERATO				·— -			Navajo		
Kerr-McG	ee Corpora	tion					1		
P.O. Box	K. Sunray	Texas					10. FIELD AN	p toor	OR WILDCAT
LOCATION OF WEL	L (Report locatio	n clearly and in a	coordance with any				Wildcat		BLOCK AND SURVEY
At surface 660	FSL and che County	2,000 FWL Arizona	of section	32, T36N	, кзое,	1	OR AREA		•
		ľów				i i			.R30E Gila a ieridian
Sam At total depth Sam	ie ·		1 14 300000 330		ATE ISSUED		12. COUNTY		1 13. STATE
		المعادية والمساورة	14, PERMIT NO.		1 -19- 67		Apache		Arizona
Te-ente	16. DATE T.P. B	TACHED 17. DATE	COMPL. (Ready lo	prod.) 15.	ELEVATIONS (DI	F, RKB, E		19. Et.	EV. CASINGHEAD
1-19-67	1-25-67	2-	1-67		7.560' GH	<u>. </u>		1	CABLE TOOLS
9. TOTAL DEPTH, MD	£ TVD 21. PLU	G, BACK T.B., MD &	TVD 22. IF MULT HOW M.	TIPLE COMPL.,	23. INTE	EVALS LED ET	ROTART TOO	us 	CARCE TOURS
3.864*	BYAL(S). OF THIS	COMPLETION—TOP	, BOTTOM, NAME (A	1D AND TYD)*	!		A11	25.	WAS DIRECTIONAL SURVEY MADE
									DUNING MADE
2,860 - 2,	885' ND	. Per	nnsylanian					97 -	NO WELL CORED
6. TYPE BLECTRIC				n 40/2				-1. ***	N.
Logs sent t	to U.S.G.S.		gton on July						<u></u>
		UAN	ING RECORD (Rep	ort all strings	aet in well)				
CASING SIZE	WEIGHT, LB.			ort all strings		ENTING	RECORD.		AMOUNT PULLED
10 3/4*	40.5	/FT. ORFTH SE	т (мр) по 3	13 3/4"	200_ss	acks_		 	None
	-	/FT. ORTH SE	т (мр) по 3	OLE SIZE	CEM	acks_			
10 3/4*	40.5	/FT. ORFTH SE	т (мр) по 3	13 3/4"	200_ss	acks_			None
10 3/4* 7**	40.5	JET. SECORD	3 9	13 3/4 ⁿ 8 3/4 ⁿ	200 Ss 200 Ss 700 Ss	acks	TUBING REC		None None
10 3/4* 7*	40.5	JET. SECTIL SE 32. 315. SECOND (MD)	т (мб) но 3	13 3/4"	200 Sa 700 Sa 30.	acks acks	TUBING REC		None None PACKER SET (MD)
10 3/4* 7** 29.	40.5 20 TOP (MD)	ST. SETH SE 32. 315. SECOND (MD) None	3 9	13 3/4 ⁿ 8 3/4 ⁿ	200 Ss 200 Ss 700 Ss	acks acks	TUBING REC		None None
10 3/4* 7* 29. 81ZE	TOP (MD)	LINER RECORD BOTTOM (MD) None sice and number)	SACKS CEMENT	8 3/4m 8 3/4m screen (M)	200 S2 700 S2 30. D) SIZE 2 3	acks acks	TUBING REC DEPTH SET () 2,866	T SQUI	None None PACKER SET (MD) 2,848
10 3/4° 7° 29. 812. PERFORATION RI 2,860°-2,	TOP (MD)	ST. SETH SE 32. 315. SECOND (MD) None	SACKS CEMENT	3 3/4m 8 3/4m 8 3/4m screen (M)	200 Se 700 Se 700 Se 2 3 4 ACID, SHOT	acks acks	TUBING REC DEPTH SET () 2,866 TURE, GEMEN	et squi	None None PACKER SET (MD) 2,848 EEZE ETC:
10 3/4* 7* 29. 81ZE	TOP (MD)	LINER RECORD BOTTOM (MD) None sice and number)	SACKS CEMENT	3 3/4n 8 3/4n 8 3/4n screen (M)	200 Sa 700 Sa 70	acks acks FRAC	TUBING REC DEPTH SET () 2,866 TURE, GEMEN MOUNT AND HI	er squi	None None PACKER SET (MD) 2,848 EEZE ETC: GATERIAL TSEO
10 3/4° 7° 29. 812. PERFORATION RI 2,860°-2,	TOP (MD)	LINER RECORD BOTTOM (MD) None sice and number)	SACKS CEMENT	3 3/4n 8 3/4n 8 3/4n screen (M)	200 Se 700 Se 700 Se 2 3 4 ACID, SHOT	acks acks FRAC	TUBING REC DEPTH SET () 2,866 TURE, GEMEN MOUNT AND HI	er squi	None None PACKER SET (MD) 2,848 EEZE ETC:
10 3/4° 7° 29. 812. PERFORATION N. 2,860°-2, 100 holes	TOP (MD)	LINER RECORD BOTTOM (MD) None sice and number)	foot or	3/4n 8 3/4n 8 3/4n screen (Mi 32. depth int 2860*	200 Sa 700 Sa 70	8n 358	TUBING REC DEPTH SET () 2,866 TURE, GEMEN MOUNT AND HI	er squi	None None PACKER SET (MD) 2,848 EEZE ETC: GATERIAL TSEO
10 3/4° 7° 29. 812. PERFORATION RI 2,860°-2,	TOP (MD) ECORD (Interval, 885* with	LINER RECORD BOTTOM (MD) None Rec and number) 4 jets per	foot or	3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 8 2. DEPTH INT. 2860* DEPUCTION	200 SE 200 SE 700 SE 30. B) SIZE 2 34 ACID, SHOT TERVAL (MD) 2885*	8m	TUBING REC DEPTH SET () 2,866 TURE, CEMEN MOUNT AND HI gals 104)00 gals	NE OF SCOT	None None PACKER SET (MD) 2,848 EEZE ETC: GATERIAL TSEO
10 3/4° 7° 29. 812. 81. PERFORATION N. 2,860°-2, 100 holes	TOP (MD) ECORD (Interval, 885* with	LINER RECORD BOTTOM (MD) None Rec and number) 4 jets per	foot or	SCREEN (M)	200 St 700 St 700 St 2 3 4 ACID, SHOT TERVAL (MD) 2885* 2885*	acks acks 8m 358 10,0	TUBING RECORDER OF TURE, GEMEN MOUNT AND RINGS 109 100 gals	NET SQUI	None None None PACKER SET (MD) 2,848 EEZE ETC: CATERIAL TSEO 10,000 # S R (Producing or n for tank r
10 3/4° 7° 29. 81. PERFORATION RI 2,860°-2, 100 holes 83.° DATE FIRST PRODUCT 1-27-67 DATE OF TEST	TOP (MD) ECORD (Interval, 885* with	LINER BECORD BOTTOM (MD) None None Jeta per DECTION METHOD SWADDING	foot or PRO (Flowing, gas lift, to	SCREEN (M) SCREEN (M) SCREEN (M) SZ. DEPTH IN 2860 2860 DUCTION DUMPING—size	200 SE 200 SE 700 SE 30. D) SIZE 2 32 ACID, SHOT TERVAL (MD) 2885* 2885*	358	TUBING REC DEPTH SET () 2,866 TURE, CEMEN MOUNT AND HI gals 104)00 gals WATER-BI	NET SQUI	None None None PACKER SET (ND) 2,848* EEZE ETC SATERIAL TSEO LC: scid 2 10,000 # s R (Producing or n for tank r
29. 81ZE 29. 81ZE 2,860°-2, 100 holes 127-67 DATE OF TEST 2-1-67	TOP (MD) ECORD (Interval, 885* with BOURS TESTE 9 1/2	LINER RECORD BOTTOM (MD) None lice and sumber) 4 jets per DECTION METHOD Swabbing D CHOKE SIZE	foot or PRO (Flowing, gas lift, gas rest period)	3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 8 2/4n 8 28601 28601 28601 28601 28602 28602 28602 28602	200 St 700 St 700 St 2 3 4 ACID, SHOT TERVAL (MD) 2885* 2885*	Be 358 10,0	TUBING RECORDER OF TURE, GEMEN MOUNT AND RINGS 109 100 gals	ND OF SCOT	None None None PACKER SET (MD) 2,848 EEZE ETC: CATERIAL TSEO 10,000 # S R (Producing or n for tank r
10 3/4° 7° 29. 81. PERFORATION RI 2,860°-2, 100 holes 83.° DATE FIRST PRODUCT 1-27-67 DATE OF TEST	TOP (MD) ECORD (Interval, 885* with BOURS TESTE 9 1/2	LINER RECORD BOTTOM (MD) None lice and sumber) 4 jets per DECTION METHOD Swabbing D CHOKE SIZE	FROO'N, FOR TEST PERIOD GILL ARL.	3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 9 3/	200 St. 700 St. 700 St. 200 St	Be 358 10,0	TUBING RECORDED TO THE CEMEN MOUNT AND HIS COMPAND OF THE COMEN AND HIS COMPAND OF THE COMPAND O	NT SQUI	None None None None PACKER SET (ND) 2,848* EEZE ETC SATERIAL TSEO LIC. SCId 2 10,000 # S R (Producing or n for tank r GAS-OIL BATIO UNKNOWN
29. 81. PERFORATION N. 2,860*-2, 100 boles 33.* DATE FIRST PRODUCT 1-27-67 DATE OF TEST 2-1-67 FLOW. YURING PRESS	TOP (MD) TOP (MD) ECORD (Interval, 885* with 600 PRO HOURA TESTE 9 1/2 CASING PRESS 0	LINER RECORD BOTTOM (MD) None Liner and number) Lines and number Lines and number Lines and number) Lines and number Lin	FROD'N. FOR TEST PERIOD	3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 9 3/	200 Se 700 Se 70	Be 358 10,0	TUBING RECORDED TO THE CEMEN MOUNT AND HIS COMPAND OF THE COMEN AND HIS COMPAND OF THE COMPAND O	NE OF SCOTE	None None None None None None None None
29. SIL PERFORATION RI 2,860°-2, 100 holes SS.* DATE FIRST PRODUCT 1=27-67 DATE OF TEST 2-1-67 FLOW TURING PRESS 0 34. DISPOSITION OF	TOP (MD) TOP (MD) ECORD (Interval, 885* with 19 1/2 CASING PRESS. O GAB (Sold, used)	LINER RECORD BOTTOM (MD) None Liner and number) Lines and number Lines and number Lines and number) Lines and number Lin	FROD'N. FOR TEST PERIOD	3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 9 3/	200 Se 700 Se 70	Be 358 10,0	TUBING RECOMENT OF THE PROPERTY OF THE PROPERT	STATE SQUI STATE SQUI STATE ST	None None None None None None None None
29. SILE SILE SILE SILE SILE SILE 2,860°-2, 100 holes 1-27-67 DATE OF TEST 2-1-67 FLOW, TURING PRESS 0 34. DIRFORITION OF WESTLED 35. LIFT OF ATTACK	TOP (MD) TOP (MD) ECORD (Interval, 885* with 19 1/2 CASING PRESS. O GAB (Sold, used)	LINER RECORD BOTTOM (MD) None Liner and number) Lines and number Lines and number Lines and number) Lines and number Lin	FROD'N. FOR TEST PERIOD	3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 8 3/4n 9 3/	200 Se 700 Se 70	Be 358 10,0	TUBING RECORDER OF TURE, GEMEN MOUNT AND HIS SOLD OF THE SECOND OF THE S	STATE SQUI STATE SQUI STATE ST	None None None None None None None None
29. SI. PERFORATION RI 2,860°-2, 100 holes 1=27-67 DATE OF TEST 2-1-67 FLOW. TURING PRESS 0 34. DISPOSITION OF Wanted 25. LIST OF ATTAC Note	TOP (MD) TOP (MD) ECORD (Interval, 1885* with 1991/2 HOURS TESTE 91/2 CASING PRESS O GAB (Sold, used)	LINER BECORD BOTTOM (MD) None See and number) Jets per CHOKE SIZE CHOKE SIZE Cor fuel, vented, etc.	FROD'N. FOR TEST PERIOD	SCREEN (M) SCR	200 Se 700 Se 70	8m 358 10,0	TUBING RECODEPTH SET () 2,866 TURE, GEMEN MOUNT AND RI 8218 109 000 gals Water - Bi 0 TEST WITH	STATE OF STA	None None None None None None None None
29. BIZE 29. BIZE 31. PERFORATION RI 2,860°-2, 100 holes 33.° DATE FIRST PRODUCT 1-27-67 DATE OF TEST 2-1-67 FLOW TURING PRESS 0 34. DIRFORITION OF TEST OF ATTACK No. 10 hereby certified 35. Liest of ATTACK No. 10 hereby certified 36. I hereby certified	TOP (MD) TOP (MD) ECORD (Interval, 1885* with 1991/2 HOURS TESTE 91/2 CASING PRESS O GAB (Sold, used)	LINER BECORD BOTTOM (MD) None See and number) Jets per CHOKE SIZE CHOKE SIZE Cor fuel, vented, etc.	FROD'N. FOR TEST PREIOD (FIGURE 1821) Sacks CEMENT* PROD'N. FOR TEST PREIOD (STEET PREIOD 1821) FOR COLL. T. REL. (STEET PREIOD 1821)	SCREEN (M) SCREEN (M) SCREEN (M) SCREEN (M) 2860* DDUCTION Pumping—size 911—BBL 242 c\lambdas un	200 SE 200 SE 200 SE 30. D) SIZE 2 36 ACID, SHOT TERVAL (MD) 2885* 2885* unkn Mcr. nknown	8m 358 10,0	TUBING RECODEPTE SET (S) 2,866 TURE, CEMEN MOUNT AND RI Gals 109 WELL AA Sh WATER-BI O TEST WITH	NE OIL G	None None None None None None None None
29. SI. PERFORATION RI 2,860°-2, 100 holes 1=27-67 DATE OF TEST 2-1-67 FLOW. TURING PRESS 0 34. DISPOSITION OF Wanted 25. LIST OF ATTAC Note	TOP (MD) TOP (MD) ECORD (Interval, 1885* with 1991/2 HOURS TESTE 91/2 CASING PRESS O GAB (Sold, used)	LINER BECORD BOTTOM (MD) None See and number) Jets per CHOKE SIZE CHOKE SIZE Cor fuel, vented, etc.	FROD'N. FOR TEST PERIOD (FIGURE 19.2)	SCREEN (M) SCR	200 SE 200 SE 200 SE 30. D) SIZE 2 36 ACID, SHOT TERVAL (MD) 2885* 2885* unkn Mcr. nknown	8m 358 10,0	TUBING RECODEPTE SET (S) 2,866 TURE, CEMEN MOUNT AND RI Gals 109 WELL AA Sh WATER-BI O TEST WITH	STATE OF STA	None None None None None None None None
29. BIZE 29. BIZE 31. PERFORATION RI 2,860°-2, 100 holes 33.° DATE FIRST PRODUCT 1-27-67 DATE OF TEST 2-1-67 FLOW TURING PRESS 0 34. DIRFORITION OF TEST OF ATTACK No. 10 hereby certified 35. Liest of ATTACK No. 10 hereby certified 36. I hereby certified	TOP (MD) ECORD (Interval, 1885* with HOURS TESTE 9 1/2 CASING PRESS O GAB (Sold, used)	LINER BECORD BOTTOM (MD) None Size and number) 4 jets per Swabbing CHOKE SIZE 24-BOCK MA For fuel, vented, etc.	FROD'N. FOR TEST PREIOD (FIGURE 1821) Sacks CEMENT* PROD'N. FOR TEST PREIOD (STEET PREIOD 1821) FOR COLL. T. REL. (STEET PREIOD 1821)	SCREEN (M) SCREEN (M) SCRE	200 Se 700 Se 70	8m 358 10,0	TUBING RECODEPTH SET () 2,866 TURE, GEMEN MOUNT AND RI 8218 109 000 gals Water Bell 0 12.87 WITH	NE OIL G	None None None None None None None None
29. BIZE 29. BIZE 31. PERFORATION RI 2,860°-2, 100 holes 33.° DATE FIRST PRODUCT 1-27-67 DATE OF TEST 2-1-67 FLOW TURING PRESS 0 34. DIRFORITION OF TEST OF ATTACK No. 10 hereby certified 35. Liest of ATTACK No. 10 hereby certified 36. I hereby certified	TOP (MD) ECORD (Interval, 1885* with HOURS TESTE 9 1/2 CASING PRESS O GAB (Sold, used)	LINER BECORD BOTTOM (MD) None Size and number) 4 jets per Swabbing CHOKE SIZE 24-BOCK MA For fuel, vented, etc.	PROD'N. FOR TEST PERIOD (Flowing, gas lift, gas lift. See See See See See See See See See Se	SCREEN (M) SCREEN (M) SCRE	200 Se 700 Se 70	8m 358 10,0	TUBING RECODEPTH SET () 2,866 TURE, GEMEN MOUNT AND RI 8218 109 000 gals Water Bell 0 12.87 WITH	NE OIL G	None None None None None None None None

Q

O



٠,٠

i (3

Ω

INSTRUCTIONS

€.

GéBERNEL This form is designed for submitting a complete and correct well completion report and log on all tyres of lands and legest to either a Federal agency or a State agency or a State agency or by the local federal and/or State laws and regardious. As the local federal and for submitted to hear, are, or regional precedence and precedence in the submitted to hear, are, or regional precedence and precedence to will be legated by, or may be obtained from, the local Federal and State and State and St. selve regarding separate completious. As a submitted, crystes of all currently available logs (deflices, seologists, sample and regulations). All statements in the local in submitted, crystes of all currently available logs (deflices, seologists, sample and regulations). All statements in the state than this form, detectional surveys, strong be retarded presure the submitted. Crystes of all currently available logs (deflices, seologists, sample and regulations). All statements is the state than this form, detectional surveys, strong be retarded presure the submitted. Crystes of all currently available better are no applicable State requirements. Indian land should be described in accordance with Federal requirements. Consuit local state are no applicable State requirements. In Indian land should be described in other spaces on the state of the state of the submitted of separate production from more than one luterval zone (untiliple completion; so, state in item 22, and in taken in the submitted should be separately broad additional interval to be separately produced, showing the additional data performed to such interval. Attached supplemental for a performance of the separate produced showing the additional data performed to an untiliple stage comenting and the separate completion report on this form for each interval. (See instruction for items 22 and 24 above.) នឧពជ៌

	THE TRUE VENT, DEPTH			CONTRACTOR			U CO
RS. GEOLOGIC MARKERS	NAME - MEAN. CRITH					*	-
MARY OF POROUS ZONES: STOW ALL IMPORTARY ZUNEM UP FOROSITY AND CONTRETE TRIBBON; CORED INTERVALE; AND ALL PRILI-STEM TESTS, INCIR DING	PER, FLOWING AND THE PERSON, CONTRATA, ETC.				were reported on original filling of this		
DROUG ZONES:	AL TESTED, CUBILION USED, TAME TOOL OF	GI.	·	3,830	All intill Stem Tests were reported on form on July 1, 1965.		·
ST, SUMMARY OF POROUS ZONES	DEFETT INTRIPA FORMATION	Triassic	Permian Pennsylvanian Mississippian Dewonian	Cambrian Pre-Cambrian	₽ * ¹į		-

and the same of th

erm 9-331 May 1963)		MENT OF THE	INTERIOF	(Oshan instanta	14-2	Form approved. Budget Bureau No. 4 E DESIGNATION AND BEE 20-0603-8823 (DIAN, ALLOTTEE OR TRI	HAL NO.
Sl (Do not use	UNDRY NO	IICES AND REDSAIS to drill or to decarrion FOR PERMIT	PORTS ON epen or plug back —" for such propo	WELLS to a different reservoir.	Nav	ajo Tribe	
OIL X CAR	LL OTHER			<u> </u>		M OR LEASE NAME	
NAME OF OPERAT	<u>Corporatio</u>	p			'	ajo :	
n - V Cun	ray Texas	clearly and in accord	ance with any Sta	ate requirements.*	Wil	1 RED AND POOL, OR WILD dest	
660° FSL a County, Ar	ind 2,000° I	WL of Section	1 32, T36N,	R30E, Apache	Sec 3	C. T. E. M. OR BLE. AN SUBVEY OF ARBA 32, T36N-R30E, Selt River Mor Ount on Parish 18.	Gila idian
14. PERMIT NO.		7.560°	how whether DP, E	T, GE, etc.)	12. co		zona
16.	Check			ture of Notice, Repo)ata	
PRACTURE TREA SHOOT OR ACID REPAIR WELL (Other)	ı r	PULL OR ALTER CASE MULTIPLE COMPLETE ABANDON® CHANGE PLANS		WATER SHUT-OFF FRACTURE TREATME: SHOUTING OR ACIDIX (Other) (Note: Report	Pari	ALTERING CASING OPATING tiple completion on We eport and Log form.)	
Started r on 1-26-6 Pulled to acidized of swabbi	e-entry wor 7, spotted bing . Peri with 358 ga ing. On 1-29	k 1-19-67. Dr 1000 gallons orated from allons of 10% 1-67, Fracture	rilled out. of 10% ace 2,860° to 2 acetic act ed well wit	all cement plustic acid with 12885 with 4 jet id. Recovered 4th 10,000 gallo l of frac oil and water in 9 1	as dates, including vertical depth as and brich of the per foot barrels on the period of the period	dge plugs to tubing at 3,0 ot. On 1-27-6 of new oil in le oil and 10, erels of new of new of the oil and 10,	3,050° 20°. 7 5 hour
Started r on 1-26-6 Pulled to acidized of swabbi	e-entry wor 7, spotted bing . Peri with 358 ga ing. On 1-29	k 1-19-67. Dr 1000 gallons orated from allons of 10% 1-67, Fracture	rilled out. of 10% ace 2,860° to 2 acetic act ed well wit	all cement plustic acid with 12885 with 4 je th 10,000 gallo	as dates, including vertical depth as and brich of the per foot barrels on the period of the period	dge plugs to tubing at 3,0 ot. On 1-27-6 of new oil in le oil and 10, erels of new of new of the oil and 10,	3,050° 20°. 7 5 hour
Started r on 1-26-6 Pulled to acidized of swabbi	e-entry wor 7, spotted bing . Peri with 358 ga ing. On 1-29	k 1-19-67. Dr 1000 gallons orated from allons of 10% 1-67, Fracture	rilled out. of 10% ace 2,860° to 2 acetic act ed well wit	all cement plustic acid with 12885 with 4 je th 10,000 gallo	as dates, including vertical depth as and brich of the per foot barrels on the period of the period	dge plugs to tubing at 3,0 ot. On 1-27-6 of new oil in le oil and 10, erels of new of new of the oil and 10,	3,050° 20°. 7 5 hour
Started r on 1-26-6 Pulled to acidized of swabbi	e-entry wor 7, spotted bing . Peri with 358 ga ing. On 1-29	k 1-19-67. Dr 1000 gallons orated from allons of 10% 1-67, Fracture	rilled out. of 10% ace 2,860° to 2 acetic act ed well wit	all cement plustic acid with 12885 with 4 je th 10,000 gallo	as dates, including vertical depth as and brich of the per foot barrels on the period of the period	dge plugs to tubing at 3,0 ot. On 1-27-6 of new oil in le oil and 10, erels of new of new of the oil and 10,	3,050° 20°. 7 5 hour
Started r on 1-26-6 Pulled to acidized of swabbi	e-entry wor 7, spotted bing . Peri with 358 ga ing. On 1-29	k 1-19-67. Dr 1000 gallons orated from allons of 10% 1-67, Fracture	rilled out. of 10% ace 2,860° to 2 acetic act ed well wit	all cement plustic acid with 12885 with 4 je th 10,000 gallo	as dates, including vertical depth as and brich of the per foot barrels on the period of the period	dge plugs to tubing at 3,0 ot. On 1-27-6 of new oil in le oil and 10, erels of new of new of the oil and 10,	3,050° 20°. 7 5 hour
Started r on 1-26-6 Pulled to acidized of swabbi of 20-40 On 2-1-6	e-entry workly, spotted bing. Peri with 358 gaing. On 1-29 sand. On 1-37, swabbed	k 1-19-67. Dr 1000 gallons orated from allons of 10% 1-67, Fracture	cilled out. of 10% ace 2,860° to 2 acetic aci ed well wit covered all f oil and 1	all cement plustic acid with 12885 with 4 jet id. Recovered 4 th 10,000 gallo l of frac oil a ne water in 9 1	as dates, including vertical depth as and brich of the per foot barrels on the period of the period	dge plugs to tubing at 3,0 ot. On 1-27-6 of new oil in de oil and 10, erels of new o	3,050° 3,050° 7 5 hour 000#
Started r on 1-26-6 Pulled tu acidized of swabbi of 20-40 On 2-1-6	e-entry workly, spotted bing. Peri with 358 gaing. On 1-29 sand. On 1-37, swabbed	k 1-19-67. Dr. 1000 gallons orated from illons of 10% 0-67, Fracture 31-67 has re- 242 barrels of ting is true and correct and	cilled out of 10% ace 2,860° to 2 acetic acied well with covered all foil and i	all cement plustic acid with 12885 with 4 jet id. Recovered 4 th 10,000 gallo l of frac oil a ne water in 9 1	as dates, including vertical depth as and brich of the per foot barrels on the period of the period	dge plugs to tubing at 3,0 ot. On 1-27-6 of new oil in de oil and 10, erels of new o	3,050° 3,050° 7 5 hour 000#

ि

IDRY NOTICES AND REPORTS ON WELL

L. Name of Operato	or Kerr-McGee Corporation
2. OIL WELL X	GAS WELL OTHER (Specify)
3. Well Name <u>N</u>	avajo No.1
Location 660	FSL and 2,000 FWL
Sec32	Twp. 36N Rge. 30E County Apache Arizona.
4. Federal, State o	r Indian Lease Number, or lessor's name if fee lease 14-20-0603-8823
	Navajo Indian Tribe
5. Field or Pool N	ame Wildcat
	iate Box to Indicate Nature of Notice, Report, or Other Data
B. Children - Philosophia	NOTICE OF INTENTION TO: SUBSEQUENT REPORT OF:
TEST WATER SI FRACTURE TRI SHOOT OR ACII REPAIR WELL (OTHER)	DIRECTIONAL DRILL PERFORATE CASING CHANGE PLANS (NOTE: Report results of multiple completion on Well Completion
	or Recompletion Report and Log form.) OPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of oposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and
1-19-67 1-20 thre	10 sack cement plug at the top of the ?" OD casing and started drilling on plug at 540. 25-67 Drilled out cement plug from 540. to 750., cement retainer at 796., cement plug 800. to 890. DM bridge plug at 1,161., cement plug from 1,210. to 1,252. Cleane out to 3,050. where there is a bridge plug. Spotted 1,000 gallons of 10% acetic acid with bottom of tubing at 3,020. Pulled
	tubing. Perforated from 2,860' - 2,885' with 4 jets per foot. Swabbed well dry. No fillup.
1-27-67	Acidized with 358 gallons of 10% acetic acid. Recovered 4 barrels of new oil in 5 hours of swabbing.
1-28-67	Swabbed 6.75 barrels of new oil in 8 hours.
1-29-67	Fractured well with 10,000 gallons of crude oil and 10,000# of 20-40 sand.
1 <u>=</u> 30 & 3	31-67 Swabbed back all of frac oil and 137 bbls of new oil.
8. I hereby cert	tify that the foregoing is true and correct. 8119
Signed	STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Sundry Notices and Reports On Wells File Two Copies Form No. 25
Permit No	

February 1, 1967

Re: Kerr-McGee #1 Navajo SE SW 32-36M-30E, Apache County Permit 377 (to re-enter)

Mr. Otto Barton telephoned at 10:30 a.m. this date. Reported that Kerr-McGee has made an oil well.

Initial production estimated 20 barrels per hour, $42\frac{1}{2}^{0}$ gravity, from Pennsylvanian formation.

The zone was perforated with 4 shots per foot from 2860 to 2885feet. The oil frack was through 2' tubing with pressure of 400 lbs. The formation took about 9½ barrels per minute. When it broke the formation went on vacuum for approximately five minutes.

Approximately 1200-1300 feet of fluid stood in the hole and could not be pumped down.

Operator will probably pull 2^n tubing and set larger tubing and put the well on pump in effort to further test.

Operator has been instructed to file with this office copies of forms filed with U.S.G.S.

Telephone numbers for Otto Barton: Sunray, Texas (806) 948-4118 office 948-4119

948-4409 -residence

377

APPLICATION FOR PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER RE-ENTER OLD WELL PLUG BACK □ APPLICATION TO DRILL \square DEEPEN [] DATE NAME OF COMPANY OR OPERATOR January 17. Kerr-McGee Corporation City Address Sunray DESCRIPTION OF WELL AND LEASE Elevation (ground) Well number Federal, State or Indian Lease Number or name of lessor, if fee lease 14-20-0603-3823
Well location and acreage dedicated to the well (give footage from section lines) 7564 Section—township—range or block & survey 660' FSL and 2000' FWL of Sec 32, T36N, R30E Field & reservoir (If wildcat, so state) Apache <u>Wildcat</u> Distance, in miles, and direction from nearest town or post office 15 miles SW of Red Rock, Arizona Nearest distance from proposed location to property or lease line: Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: None 660 Approx. date work will start Rotary or cable tools Proposed depth: 1-18-67 Pulling Unit 2900 Number of wells on lease, including this well, completed in or drilling to this reservoir: Number of acres in lease: one 2533
If lease, purchased with one or more wells drilled, from whom purchased: Address Name Organization Report On file Status and amount of bond Filing Fee of \$25,00 Attached X **Example** Blanket Bond Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) We intend to re-enter this plugged well by drilling out cement and clearing cut to 2900. The Pennsylvanian will be perforated and tested from 2860 - 85 feet. PLEASE KEEP THIS INFORMATION CONFIDENTIAL. Verbal Permission 1-17-67 Orginally drilled under Permit 303. *Fill in Proposed Casing Program on reverse side CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the .. Division Production Supta Kerr-McGee Corporation (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge. Mr. Barley Otto C. Barton CONFIDENTIAL January 17, 1967 Release Date. Permit Number: STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Approval Date: Application to Drill, Deepen or Plug Back and Plat Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided. File Two Copies

API # 02-001- 20001

See Instruction on Reverse Side of Form

(Complete Reverse Side)

Form No. 3

. Operator shall outline the dedicated	l acreage for both o	il and	gas wells	on t	the plat
--	----------------------	--------	-----------	------	----------

- 2. A registered professional engineer or land surveyor registered in the State of Arizona or approved by the Commission shall show on the plat the location of the well and certify this information in the space provided.
- 3. All distances shown on the plat must be from the outer boundaries of the Section.
- 4. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES____NO____
- 5. If the answer to question four is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES______NO_____ If answer is "yes," Type of Consolidation______
- 6. If the answer to question four is "no," list all the owners and their respective interests below:

CERTIFICATION I hereby certify that the ir tion above is true and com the best of my knowledge belief. Name — Position Company Date I hereby certify that the with shown on the plat was from field notes of actual made by me or under my vision, and that the same is correct to the best of my knowledge belief. Date Surveyed Grant Company Registered Professional E and/or Land Surveyor	er		Land Description	
I hereby certify that the in tion above is true and company belief. Name — Position Company Date I hereby certify that the way tion shown on the plat way from field notes of actual made by me or under may vision, and that the same is correct to the best of my kn and belief. Date Surveyed G.A. Registered Professional E				
tion above is true and com the best of my knowledge belief. Name — Position Company Date I hereby certify that the w tion shown on the plat was from field notes of actual made by me or under my vision, and that the same is correct to the best of my kn and belief. Date Surveyed Grant Registered Professional E			CERTIFIC	ATION
Name — Position Company Date I hereby certify that the w tion shown on the plat war from field notes of actual made by me or under m vision, and that the same is correct to the best of my kn and belief. Date Surveyed Company Date Registered Professional E			tion above is true the best of my k	and complete to
I hereby certify that the we tion shown on the plat was from field notes of actual made by me or under me vision, and that the same is correct to the best of my knew and belief. Date Surveyed Registered Professional E	(a. , , ,			
I hereby certify that the wation shown on the plat was from field notes of actual made by me or under my vision, and that the same is correct to the best of my kn and belief. Date Surveyed Registered Professional E			Company	
tion shown on the plat was from field notes of actual made by me or under my vision, and that the same is correct to the best of my kn and belief. Date Surveyed Registered Professional E				
Date Surveyed CAR Registered Professional E		5. 前州安朝 為27	tion shown on the from field notes made by me or vision, and that the correct to the bese	e plat was plotte of actual survey under my supen he same is true an
	\ \ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	(3 3 - 25 8 3 1 2)	Date Surveyed	essional Enginee
Certificate No.	1,, :		and/or Land Su	

Size of Casing Weight Grade & Type Top Bottom Cementing Depths Sacks Cement

Ø

Well Name & No. No. 1	<u> 410</u>		ease No		
Location 660 feet from	n the South line	and 2000 feet f	rom the We	st line.	
Being in <u>SELSW</u>			<u></u>		
Sec. 32 , T36 N., R30 5	AS †,Р.Ж , Gila &	Sai't River Meri	dlan, Apac	he County, A	rizona
Ground Elevation 7560	KM			K.M.	
	1			•,	
	201				•
					. •
	·				
	1980 - 102				
11.1	No2.				
KM -		S e c. 3 2			
				KM.	
				/\ / !!	
<u>'</u> —					•
	2000				
	Scale, 4	inches = i mile	*	3	·
Humble		RR-MC Gee		K.M.	
Surveyed November	22			, 19 64	· · · · · · · · · · · · · · · · · · ·
This is to certify that to me or under my supervi	he above plat was pre-	pared from field note:	s of actual sur to the best of	veys made by my	
knowledge and belief.	1				
SED LAND S		and	J. Ce	~ Kaurt	<u>b</u>
Seal:	·		nest V. Echoha gistered Land		. •
Seal: PRINTER V. SECHOHAWK		N.	M. Rog. #164	5 -	
Or S	11.1	Van 1800 – 1800	, Do) 11/C= 11/2))
ONA, U.S. New Mexi	~ KM/	Vavajo No.: Poration	1 - DKI	IIVE WE	· · · · · · · · · · · · · · · · · · ·
	mast C	PORATION	IN are	n OOBa	-0



PERMIT TO THE RE-ENTER

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION, STATE OF ARIZONA,

o: Kerr-M	C GEE CORPORATION	
	(OPERATOR)	•
RE-ENT		•
· io 温度 a W	rell to be known as	
Keer-M	C GEE #1 NAVAJO	
(A	WELL NAME)	
located660 * FSL and 2	2000' FWL (SE SW)	
Section 32 Township 36% Range	30E , Apache	County, Arizona.
The E/2 SW/4		of said
Section, Township and Range is dedicated to	this well.	•.
Said well is to be drilled substantially as in full compliance with all applicable laws, sta	atutes, rules and regulations of	the State of Arizona.
Issued this 23x4 day of	January ,	19_67.
PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL	OIL AND GAS CONSERV	ation commission
PRIOR TO BEING ALLOWED TO PRODUCE WITH RULE YOU MUST BE IN FULL COMPLIANCE WITH RULE YOU MUST BE IN FULL COMPLIANCE WITH RESPECT 100, SECTION A THRU G (SPACING), WITH RESPECT 10 THE PRODUCT TO BE PRODUCED.	EXECUTIVE	SECRETARY
	State	e of Arizona

Oil & Gas Conservation Commission

Permit to Drill

FORM NO. 27

N₀

API Well No. 02-001-20001

RECEIPT NO. 9471

PERMIT

377

O

DINEH-BI-KEYAH FIELD

Operator:

Mountian States Petroleum Corporation

Bond Company:

Indian lands, evidence of bond posted with BIA

Amount:

\$325,000*

Bond No.: Letter of Credit Bond No. 315 Date approved: 5/27/94

* Pursuant to commission motion of October 31, 1997, no bond required with State of Arizona upon evidence of bond posted with the BIA.

Permits covered by this bond posted with the BIA:

,	
<u>377</u> /	<u>445</u>
384	<u>446</u>
<u>385</u>	<u>484</u>
<u>386</u>	<u>506</u>
388	<u>618</u>
389	<u>691</u>
<u>390</u>	<u>692</u>
<u>396</u>	<u>693</u>
<u>416</u>	<u>695</u>
<u>417</u>	<u>696</u>
<u>419</u>	<u>719</u>
<u>421</u>	<u>720</u>
<u>422</u>	721
<u>431</u>	722
<u>443</u>	(723)

IJ



Jane Dee Hull Governor

State of Arizona Arizona Geological Survey 416 W. Congress, Suite 100

116 W. Congress, Suite 10 Tucson, Arizona 85701 (520) 770-3500



Larry D. Fellows Director and State Geologist

December 1, 1997

Ms. Stacey Roberts Kerr-McGee Corporation -P.O. Box 25861 Oklahoma City, OK 73125

Re: Kerr-McGee Corporation

\$25,000 Oil Drilling Blanket Bond #2971100-2620

Safeco Insurance Company of America

Dear Ms. Roberts:

Mountain States Petroleum has provided evidence of its bonding with the BIA for the Dineh-bi-Keyah Field in Arizona, and our records show that Kerr-McGee Corporation has no outstanding drilling or plugging obligations in Arizona.

As a result, this letter constitutes written permission by the Oil and Gas Conservation Commission to terminate liability under the referenced bond. A copy of the bond is enclosed for your information.

Please advise if we may be of further service.

Sincerely,

Steven L. Rauzi

Oil & Gas Program Administrator

Stevent. Rains

Enclosure

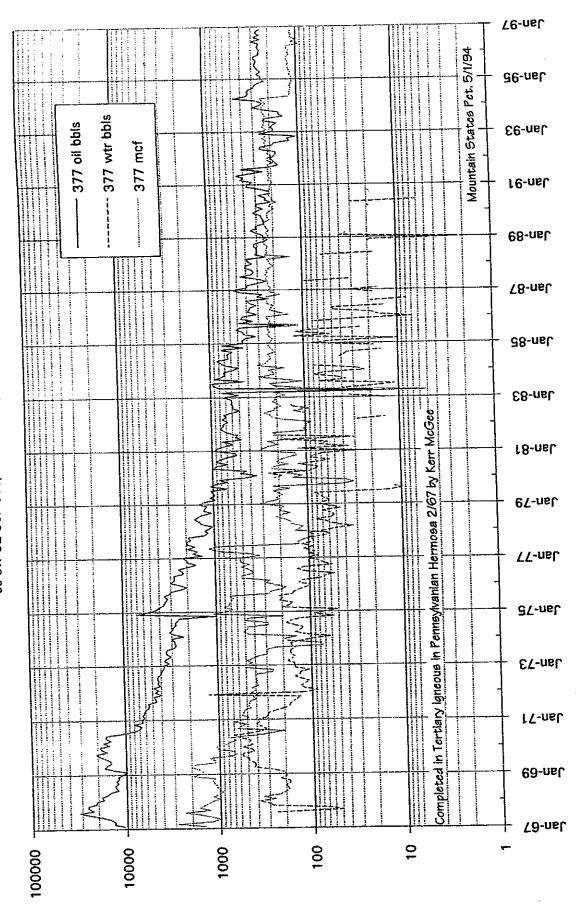
Bond Company SAFECO INSURANCE COMPANY OF AMERICA Amount \$25,000 Abbroved FEBRUARY 18, 1994 Bond No. 2971100-2620 Permits dovered by this bond: ACTIVE

KERR-McGEE CORPORATION

Operator

O

MONTHLY PRODUCTION AT 1 NAVAJO (377), ARIZONA: FEB 1967 - DEC 1996 se sw 32-36n-30e, Dineh-bi-Keyah Field, Apache County





Fife Symington Governor

Arizona Geological Survey

845 North Park Avenue, #100 Tucson, Arizona 85719 (602) 882-4795



Larry D. Fellows
Director and State Geologist

June 8, 1994

Ms. Judy Burkhart Mountain States Petroleum Corporation P. O. Box 1936 Roswell, New Mexico 88201

Dear Ms. Burkhart:

This will acknowledge receipt of your letter of June 6, which included a change of operator form for each of the 31 Kerr-McGee Corporation wells at the Dineh-bi-Keyah Field sold to Mountain States Petroleum Corporation. Our records indicate that the Navajo #B-1 was plugged and abandoned by Kerr-McGee Corporation in October 1993.

Please note that our records indicate a different API number than the one you have recorded on your forms for the following wells:

_Well	API #
Navajo 01	02-001-20001
Navajo 03X	02-001-20011
Navajo 04	02-001-20009
Navajo 10	02-001-20042
Navajo 14	02-001-20040
Navajo 15	02-001-20041

Sincerely,

Stevent. Rain

Steven L. Rauzi
Oil & Gas Program Administrator

ormania i

UNITED STATES DEPARTMENT OF THE INTERIOR MINERALS MANAGEMENT SERVICE ROYALTY MANAGEMENT PROGRAM

CHANGE'S TO REPORTER INFORMATION

OLD INFORMATION:
AMS OPERATOR CODE: X 0 2 1 7
COMPANY NAME: KERR MCGEECORPORATION
COMPANY WANTE.
NEW INFORMATION:
MMS OPERATOR CODE: X 0 2 7 4
COMPANY NAME: MOUNTAIN STATES PETROLEUM CORP
CONTACT NAME: RUBY WICKERSHAM
STREET AODRESS: 2 1 3 E FOURTH
CITY: ROSWELL I
STATE: ZIP CODE: 8 8 2 0 1 -
PHONE: 505 623 7184
COMPLETE IF APPLICABLE:
I AM NO LONGER AN OPERATOR OF INDIAN OR FEDERAL PROPERTIES. PLEASE REMOVE MY NAME FROM YOUR MAILING LIST.
COMPANY SOLD TO: EFFECTIVE DATE:
LEASES / AGREEMENTS AFFECTED: NAVAJO #1 (303 /377) CONSERVAL AS AGAINGMENTS
ELACLO / ACTICLMENTO / A V SO I SO
Dineh Bi Keyah Field - Apache County, Arizona JUN 3 1994 Lease #: 14-20-0603-8823 API #: 020010527000S1
02-001-20001
COMMENTS: This property was sold to Mountain States Petroleum Corp.
and they became operator effective May 1, 1994.
•

MAIL TO:

MINERALS MANAGEMENT SERVICE ROYALTY MANAGEMENT PROGRAM

P.O. BOX 25165 MS 3122 DENVER, CO 60225

FORM MMS — RPD/PRB/INFO FORM (REVISED 4/93)

SIGNATURE:

DATE:

303/377

Ω

P. D. BOX 1936

505 623-7184

MOUNTAIN STATES PETROLEUM CORPORATION

213 EAST FOURTH STREET ROSWELL, NEW MEXICO 88202 June 6, 1994

Arizona Geological Survey 845 North Park Avenue, #100 Tucson, Arizona, 85719 AZ OIL & GAS CONSERVATION COMMISSION

JUN 8 1994

Attention: Steven L. Rauzi,

Oil & Gas Program Administrator

Re: Dineh-bi-Keyah Field

Apache County, Arizona

Dear Sir;

In followup of our May 24, 1994, letter to you relative to the change of operator from Kerr McGee to Mountain States Petroleum Corporation for the captioned field; please find enclosed a copy of the notices sent to the Minerals Management Service.

We hope this will supply the information you requested and apologize for any inconvenience we may have caused. If you have any questions or are in need of anything further please contact the undersigned. Thank you.

Sincerely,

Judy Burkh Judy Burkhart,

Secretary

Enclosures

P. O. BOX 1936

505 623-7184

MOUNTAIN STATES PETROLEUM CORPORATION

213 EAST FOURTH STREET ROSWELL, NEW MEXICO 88202

May 24, 1994

Arizona Geological Survey 845 North Park Avenue, #100 Tucson, Arizona 85719

Attention: Steven L. Rauzi,

Oil & Gas Program Administrator

Re: Dineh-bi-Keyah Field Apache County, Arizona

Dear Sir;

Please be advised that effective May 1, 1994, Mountain States Petroleum Corporation replaced Kerr-McGee as Operator of the captioned field and it's respective wells.

Listed on the attached sheet are the well names and API #'s of each well in this field, including shut-in, producing, and abandoned wells.

Please change your records to reflect that Mountain States Petroleum Corporation, Post Office Box 1936, Roswell, New Mexico, 88202-1936, (505) 623-7184, is now the operator of these properties and as such will be filing all required monthly production reports.

If you have any questions or are in need of anything further in this matter please contact the undersigned. Thank you.

Sincerely,

Judy Burkhart, Secretary

Attachment

AZ GREAT CONSTRUCTION

MAY 3 1 1994

Amount 25,000 Bond Company Insurance Co. of N. America Bond No. M 41 95 25 (KM528) Date Approved 10-28-65 Permits covered by this bond: 10 ' 37 . 38 · 63 . 64 . 142. -303 ADB 25,000 91 • #3471020-52 DATE 349. 378.

<u>385</u>

KERR MC GEE-OIL INDUSTRIES INC.

Operator

G.

-,-

K



626 AMARILLO PETROLEUM BUILDING
P. O. BOX 250 • AMARILLO, TEXAS 79105

December 3, 1974

PHONE R06 376-7256

806 376-7256

State of Arizona
Oil & Gas Conservation Commission
4515 N. 7th Ave.
Phoenix, Arizona 85013

Re: Navajo No.1 - Workover Dineh-Bi-Keyah Field Sec. 32 - T36N-R30E Apache County, Arizona

Dear Sirs:

On the subject well find attached two (2) copies of "Well Completion or Recompletion Report and Well Log" and two (2) copies of "Sundry Notices and Reports on Wells".

If other information is needed, please contact me at the above address.

Sincerely,

KERR-McGEE CORPORATION

Andrew Abarr
Production Engineer

AA: dt Attch.

cc: H.C. Hanna/attch.
WRF (thru WER - CJB)/attch.
Farmington Office/attch.

RECEIVED

DEC 0 9 1974

O & G CONS. COMM.





UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF MINES

Laramie Energy Research Center

P. O. BOX 3395, UNIVERSITY STATION LARAMIE, WYOMING 82070 May 7, 1974

Mr. W. E. Allen, Director Enforcement Section Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

Dear Mr. Allen:

The enclosed analyses are the only ones we have on file for Apache County, Arizona. One is the Dineh-bi-Keyah field, T 36 N, R 30 E, and the other for a wildcat located in T 40 N, R 28 E.

Sincerely yours,

Paul Biggs

Supervisory Petroleum Engineer

Enclosures

RECEIVED
MAY 10 1974
0 & G CONS. COMM.

T common !

. E DOLENS AND



OFFICE O

Gil and Cas Conservation Commission

STATE OF ARIZONA

4515 NORTH 7TH AVE. PHOENIX, ARIZONA 85013 PHONE: (602) 271-5161

April 19, 1974

Mr. B. G. Taylor Kerr-McGee Corporation Kerr-McGee Building Oklahoma City, Oklahoma 73102

Re: Annual Pressure Tests
Dineh-bi-Keyah Field
Apache County Arizona
Permit Nos. (377) 379, 396 & 388

Dear Mr. Taylor:

This letter is your authorization to suspend the annual pressure testing of certain designated wells in the Dineh-bi-Keyah Field.

At any time during the course of your operations that you do test any of the wells in this field, this Commission will expect to be furnished the results of such tests.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

Ω



B. G. TAYLOR, VICE PRESIDENT
OIL AND GAS PRODUCTION DIVISION

April 16, 1974

Arizona Oil & Gas Commission 4515 North 7th Avenue Phoenix, Arizona 85013

Attention Mr. John Bannister

ANNUAL PRESSURE TESTS DINEH BI KEYAH FIELD APACHE COUNTY, ARIZONA

The field rules for the Dineh bi Keyah Field require that annual pressure tests be performed on certain designated wells in the field. In our opinion, these tests no longer provide useful data.

It is respectfully requested that Rule F of the field rules for the Dineh bi Keyah Field be rescinded so as to eliminate the well pressure testing requirement. We will, of course, be happy to provide the Commission with a copy of any pressure tests on the field wells should we decide to run additional such tests at some time in the future.

B. G. Taylor

BGT/bs

377

MECH VEL

DIG CONTROLLER



P. O. BOX 250 . AMARILLO, TEXAS 79105

November 5, 1973

PHONE 806 375-7256

Oil and Gas Conservation Commission State of Arizona 4515 North Seventh Avenue Phoenix, Arizona 85013

Attention: Mr. W. E. Allen

Director

Dear Mr. Allen:

In regards to your letter of September 18, 1973, requesting reserve information for the Dineh-bi-Keyah Field and Pinta Dome Field, please be advised that I have referred your letter to our Oklahoma City office and have determined that due to company policy, we are unable to furnish the information at this time.

Yours truly,

KERR-MCGEE CORPORATION

Warren E. Richardson District Manager Southwestern District

WER/mm

RECEIVED

WUY U U ISTU

O & G CONS. COMM.

September 18, 1973

Mr. Warren E. Richardson Kerr-McGee Corporation P. O. Box 250 Amarillo, Texas 79105

Dear Mr. Richardson:

Will you please supply this Commission with any information that you might have regarding the recoverable reserves in the Dineh-Bi-Keyah Field and also in the Pinta Dome Field?

This information will be considered confidential if you so desire.

Thank you for your cooperation.

Very truly yours,

W. E. Allen, Director Enforcement Section

WEA/rlb

377



P. O. BOX 250 . AMARILLO, TEXAS 79105

806 376-7256

August 6, 1973

Oil and Gas Conservation Commission State of Arizona 4515 North 7th Avenue Phoenix, Arizona 85013

> RE: Annual Bottom Hole Pressure Survey Dineh-bi-Keyah Field Apache County, Arizona

Gentlemen:

Enclosed is completed Form Number 7, Reservoir Pressure Report, showing the annual bottom hole pressure survey for the Navajo Well Numbers 1 2 and 9, and Navajo Tract 138 Well Number 1. Also enclosed are the calculations and plots for this survey.

Sincerely yours,

KERR-McGEE CORPORATION

C. J. Breeden

District Production Superintendent

CJB/mm

Attachments

Copies to: USGS

Farmington, New Mexico

311

Navajo Tribe

Window Rock, Arizona

RECEIVED

AUG U 6 1973

U & G CONS. COMM.

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

AUG 2 RELT

.

Associated with Dennis Comme Co.

P. O. Box 5247 Midland, Texas 79701

July 31, 1973

Kerr-McGee Corporation P. O. Box 250 Amarillo, Texas 79105

Attention: Mr. Joe Breeden

Subject:

Fluid Level Build Up Measurements

Four Wells

Dineh Bi Keyah Field Apache County, Arizona Our File NO. 2-5185-FL

Gentlemen:

Attached hereto are the results of fluid level build up measurements which were made in subject field July 10 and July 12, 1973.

The data presented are in tabular and graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Meil Testeller

NT/ct

311 RECEIVED

O & G COMES, COMMI.

Serving the Permian Basin & Rocky Mountain Area

1 @223.62



P. O. BOX 250 - AMARILLO, TEXAS 79105

August 7, 1972

PHONE 806 376-7256

Arizona Oil and Gas Conservation Commission 4515 North 7th Avenue Phoenix, Arizona 85013

Gentlemen:

Enclosed please find calculations and plots for the annual bottom hole pressure survey conducted on the Navajo #1, Navajo #2 and Navajo #9 wells. This information was inadvertently omitted from the letter dated August 5, 1972.

Sincerely yours,

KERR-MCGEE CORPORATION

S. E. Dobler District Engineer

SED:kj Enclosures

cc: USGS - Farmington Navajo Tribe Humble Oil

311

RECEIVED

AUG 09 ISIC

O & G CONS. COMM.



P. O. BOX 250 • AMARILLO, TEXAS 79105

PHONE

August 5, 1972

806 376-7256

Arizona Oil and Gas Conservation Commission 4515 North 7th Avenue Phoenix, Arizona 85013

RE: Kerr-McGee Corporation
Annual Bottom Hole Pressure Survey
Dineh-bi-Keyah Field
Apache County, Arizona

Gentlemen:

Enclosed please find Form #7, Reservoir Pressure Report, listing results of the annual bottom hole pressure survey on the Navajo #1, Navajo #2 and Navajo #9 wells.

Sincerely yours,

KERR-McGEE CORPORATION

S. E. Dobler District Engineer

SED:kj Enclosure

cc: USGS - Farmington Navajo Tribe Humble Oil

RECEIVED

AUG 07 19/2

O & G CONS. COMM.

#311

STATE AND

EFTELLER, INC.
reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

Associated with Dennis Owens Co.

P. O. Box 5247 Midland, Texas 79701

July 31, 1972

Kerr-McGee Corporation P. O. Box 250 Amarillo, Texas 79105

Attention: Mr. Stan Dobler

Subject: Fluid Level Measurements

Four Wells

Dineh Bi Keyah Field Apache County, Arizona Our File No. 2-4719-FL

Gentlemen:

Attached hereto are the results of fluid level measurements which were made in subject field July 19, 1972.

The data presented are in tabular and graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at any time.

Respectfully submitted,

TEFTELLER, INC.

Meil Testeller Nell Testeller

NT/ct

RECEIVED

AUG 0 9 19/2

O & G CONS. COMM.

Serv (the Permian Basin & Rocky Mount Area

O

37¹



P. O. BOX 250 . AMARILLO, TEXAS 79105

August 3, 1971

PHONE 806 376-7256

Arizona Oil and Gas Conservation Commission 4515 North 7th Avenue Phoenix, Arizona 85013

RE: Kerr-McGee Corporation

Annual Bottom Hole Pressure Survey

Dineh-bi-Keyah Field Apache County, Arizona

Gentlemen:

Enclosed please find Form #7, listing results of the Annual Bottom Hole Pressure Survey on the Navajo #1, Navajo #2, and Navajo #9.

Sincerely yours,

KERD MCGEE CORPORATION

CLD Williams District Manager Southwestern District

Production Division

CDW: kj Enclosures

cc: U.S.G.S. - Farmington Navajo Tribe

Humble Oil

RECEIVED

AUG 5 1971

O & G CONS. COMM.

reservoir engineering data

MIDLAND, TEXAS / FARMINGTON, NEW MEXICO

P. O. Box 5247 Midland, Texas 79701

July 30, 1971

Kerr-McGee Corp. 215 Petroleum Center 87401 Farmington, New Mexico

Attention: Mr. Joe Breeden

Subject: Fluid Level Build-up Measurements

& Fluid Level Measurements

5 Wells

Dineh Bi Keyah Field Apache County, Arizona Our File No. 2-4306-FL

Gentlemen:

Attached hereto are the results of fluid level build-up measurements and fluid level measurements which were made on wells in the above captioned field July 6, 1971.

The data presented are in tabular and graphical form.

It has been our pleasure to have conducted this service for you. If we may be of further assistance, please call us at anytime.

Respectfully submitted,

TEFTELLER, INC.

Meil Testeller Neil Testeller

RECEIVED

AUG 5 19/1

O&G CONS. COMM.

FT/bt

X-Chileno X-Comber

August 27, 1969

Mr. Otto Barton Kerr-McGee Corporation P. O. Box 250 Amarillo, Texas 79105

Re: Kerr-McGee #1 Navajo SE/4 SW/4 32-36N-30E, Apache County Permit #377

> Kerr-McGee #2 Navajo SE/4 NW/4 32-36N-30E, Apache County Permit #379 \(\)

> Kerr-McGee #9 Navajo SE/4 SE/4 30-36N-30E, Apache County Permit #396

Dear Mr. Barton:

Commission Order No. 24 dated August 16, 1967, established a bottom hole pressure test for the captioned wells within the Dineh bi Keyah Field. This procedure this year was to have been done in conjunction with the testing procedure connected with Case No. 36 applying to the #11 well. Please submit the completed Form 7's on these wells. We enclose a few for your convenience.

Yours truly,

506-X

James A. Lambert Administrative Assistant

JAL:jf

377

O

OCCUPANTS.



OFFICE OF

Oil and Gas Conservation Commission

STATE OF ARIZONA
ROOM 202
1624 WEST ADAMS
Phoenix, Arizona USUU7

pornix, Arizona H5UU*t* PHONE: 271-5161

June 12, 1969

Kerr-McGee Corporation Kerr-McGee Building Oklahoma City, Oklahoma 73102

Re: Case No. 36

Attention: Mr. John Fisher

Gentlemen:

Pursuant to Commission Order 21A dated May 21, 1969, a meeting was held in the Commission offices at 1624 West Adams Street, Phoenix, Arizona, at 1:00 p.m. on June 11, 19^{-5} .

Present at this meeting and representing Kerr- 'ee Corporation were Mr. John I. Fisher and Bill P. Stauss. I went and representing Humble Oil Company were Kenneth H. Lave and J. K. bytle. Present and representing the Oil and Cas Conservation Commission were John Bannister, James R. Scurlock and James Lambert. Also present and representing the Commission in his capacity as engineer was Ewell Walsh of Farmington, New Mexico.

The purpose of this meeting was to establish a testing program for Kerr-McGee Corporation's proposed well, the Kerr-McGec No. 11 Navajo, to be located in the NW/4 SE/4 of Section 32, Town-ship 36 North, Range 30 East, Apache County, Arizona, and being a part of the Dineh-bi-Keyah Field.

As a result of this meeting, the following testing program has been established as satisfactory to this Commission. The program outlined below will be strictly adhered to and no deviation therefrom will be permitted.

TESTING PROGRAM

1. After the Kerr-McCee No. 11 Navajo Well has reached total depth, completed, and after load it has been recovered (the initial potential test will be delayed until the first day of full production from this well),

Kerr-McGee Corp. 6-12-69 Page 2

this well will be shut in until its bettom hole pressure has stabilized to within no more than a five pound pressure increase or less over a 24-nour period.

- 2. After the Kerr-McGee No. 11 Well has stallized as set forth in Section 1 above, Kerr-McGea los. 1, 2, 3% and 4 Navajo Wells will be shut in for a continuous twelve hour period.
- 3. After the initial twelve hour shut in period as outlined in Section 2 above, Kerr-McGec 75. 4 Well shall be put on production.
- 4. Twelve hours after Kerr-McCee No. 4 Nava, Well has been put on production, the Kerr-McGee To. 3M Navajo Well will be jut on production.
- 5. Twelve hours after Kerr-McGee No. 3X Novejo Well has been put on production, the Kerr-McGee 7. 2 Mayajo Well will be put on production.
- 6. Twelve hours after Kerr-MeCea No. 2 Nov 1. Well has been put on production, the Kerr-McGec . . 1 Mayejo Well will be put on production.
- 7. Continuous bottom hole pressure readings shall be recorded in the Kerr-McGee No. 11 Navojo Well for a maximum period of 192 hours from the time that Kerr-McGee Nos. 1, 2, 3X and 4 Navajo Wells are shut in, as outlined in Section 2 above, or until there is evidence of interference in the Kerr-McGee No. 11 Navajo Well, whichever is the lesser time.

Should there be evidence of interference in this well prior to the 192 hours specified maximum time, Kerring Gee Corporation will immediately notify the Commission at its Phoenix address. Should the Exerctive Secretary of the Commission be satisfied that they is evidence of interference, he may authorize a centary to be satisfied as to evidence submitted, test will confine for the full maximum 192 hours, as herein specified.

8. Upon completion of the tests as specific I in Section 7 above, Kerr-McGee Corporation may comment the full production of the Kerr-McGee No. 11 Nav. 7 Well.

a

The second secon

- Action (Action)

Kerr-McGee Corp. 6-12-69 Page 3

Commission Order No. 24 dated August 16, 1967 establishes bottom hole pressure testing for certain key wells within the Dineh-bi-Keyah Field. Inasmuch as Kerr-McGee Nos. 1 and 2 Navajo Vells are designated in said order as key wells, the Mut in time as above specified in Section 2 of the testing produce may be used by Kerr-McGee Corporation for its stabilization period for the purpose of compliance with said Order No. 24.

The bottom hole pressure test as called for it aid Order No. 24 as to the Kerr-McGee No. 9 Navajo Well and as to the Humble No. 1-138 Navajo Well, shall be conducted as soon as essible after the completion of the above set forth testing schedule.

Should you have any questions, please advise immediately.

Yours Cruly

John Pannister
Executive Secretary

/vb

cc - Numble Oil Company Att'n. J. K. Lytle

Ewell Walsh

Commissioners

U.S.G.S. - Farmington Att'n. Phil McGrath

The Navajo Tribe

റ

X LAmbert Log X-Chrono Log

garch 5, 1388

kerr-scoe Corporation 215 Petroless Caster Sullding Farsington, New Sexico 87491

Re: Mavajo Al Savajo Al Sa

Gentlemen:

We remind you that Rule 301), Paragraph 3, of our Rules and Regulations directs the operator to take a sept-annual des-Oll Ratio rest of each producing oil well. The next test should be taken to March, 1988, and reported to this office by opil 10, 1988.

Enclosed are force for jour convenience.

Years truly,

James . Lamport Edministrative susistant

. 1

Fre.

37

O

KERR-MCGEE CORPORATION

215 Petroleum Center Building Farmington, New Mexico October 4, 1967

State of Arizona O&G Conservation Commission Room 202 - 1624 W. Adams Phoenix, Arizona 85007

Attn: Mr. John Bannister

RE: Quarterly GOR Tests Dineh-bi-Keyah Field Apache County, Arizona

Gentlemen:

Enclosed please find G.O.R. Tests conducted during the month of September 1967, as required by Commission Order No. 24.

If any further information is required please notify our office.

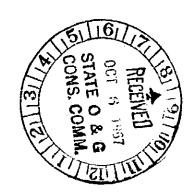
> Very truly yours, KERR-MCGEE CORPORATION

C. D. Williams Production Supt.

CDW/hs

Enclosures

cc: USGS Tribe J.I.Fisher R. W. King WRF \mathbf{RF}



The of Submitted

KERR-MCGEE CORPORATION

KERR-McGEE BUILDING . OKLAHOMA CITY, OKLAHOMA 73102

215 Petroleum Center Building Farmington, New Mexico 87401

August 11, 1967

State of Arizona Oil & Gas Conservation Commission

Room 202 - 1624 West Adams Phoenix, Arizona 85007

Attention: Mr. John Bannister
Executive Secretary

Re: Confidential Well Information

Dineh-bi-Keyah Field Apache County, Arizona

Dear John:

Please be advised that Kerr-McGee has removed from confidential well status the following wells:

```
SESW, Section 32, T36N, R30E
_Navajo No. 1
                        SENW, Section 32, T36N, R30E
- Navajo No. 2
                         SESE, Section 32, T36N, R30E
- Navajo No. 3X
                        SENE, Section 32, T36N, R30E
-Navajo No. 4
                         SENE, Section 31, T36N, R30E
- Navajo No. 6
                         SESW, Section 29, T36N, R30E
_Navajo No. 7
                         SESE, Section 29, T36N, R30E
- Navajo No. 8
                         SESE, Section 30, T36N, R30E
-Navajo No. 9
                         SENW, Section 31, T36N, R30E
_ Navajo No. 14
                         SESW, Section 30, T36N, R30E
- Navajo No. 15
                         SENW, Section 30, T36N, R30E
-Navajo No. 16
                         SENW, Section 33, T36N, R30E
 .Navajo No. C-2
```

Kerr-McGee desires to hold in the confidential status the information on the following wells:

Navajo No. 5 - SESE, Section 31, T36N, R30E Navajo No. 13 - SESW, Section 31, T36N, R30E SESW, Section 5, T35N, R30E Navajo No. B-2 - SENE, Section 5, T35N, R30E Navajo No. E-1 - SESE, Section 20, T36N, R30E

Very truly yours,

C. D. Williams

Production Superintendent

CDW:la

CC: USGS - Farmington
Navajo Tribe - Farmington

377

() Aire Mais

(I (III)

KERR-MCGEE OFFICE THE RESERVE

RERR-MCGCL BUILDING - OKLAHOMA CITY, OKLAHOMA 73107

215 Petroleum Center Building Farmington, New Mexico July 20, 1967

State of Arizona O&G Conservation Commission Room 202 - 1624 W. Adams Phoenix, Arizona 85007

Attn: Mr. John Bannister Exec. Secretary

> RE: Navajo Lease Dineh-bi-Keyah Field Apache Co., Arizona

Gentlemen:

Enclosed please find Form 8, Operator's Certificate of Compliance and Authorization to Transport Oil or Gas From Lease. This request is for approval of change of Transporter of the oil produced from the Lower Hermosa oil wells on the Kerr-McGee Corp. Navajo Lease.

Fresent producing wells on the lease are Navajo Well Nos: 1, 2, 3X, 4, 6, 7, 9, 14, and 15. If additional information is needed, please advise.

Very truly yours, KERR-MCGEE CORPORATION

C. D. Williams Production Supt.

CDW/hs

Enclosures

cc: U.S.G.S.
Nav. Tribe
K-McGee Pipeline Corp.
J.I.Fisher
Nav. Lse. File

₹.

RF

377) 390 379 389 386 396 884 416 417

July 19, 1967

Oil and Gas Conservation Commission Room 202 - 1624 W. Adams Phoenix, Arizona 85007

Attn: Mr. John Bannister

Re: Well Logs For: Navajo Well 3X Apache County, Arizona S32-T36N-R30E

Gentlemen:

With reference to Kerr-McGee's letter of July 12, 1967 wherein the set of electric logs was furnish to the commission with the request that they be kept confidential for the remainder of the six-month period, this is to advise that effective immediately Kerr-McGee authorizes the release and use of the logs on Well #3X.

In order to further clarify Kerr-McGee's position, release is also authorized for all other data with reference to the wells for which the logs have also been released.

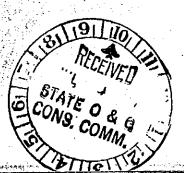
Very truly yours,

KERR-MCGEE CORPORATION

General Manager Oil & Gas Prodn. Oprs.



sames and has been presented as a common



KERR-MCGEE CORPORATION

COPY

RERR.MCGEE BUILDING · CKLAHOMA CITY. OKLAHOMA 73102
215 Petroleum Center Building
Farmington, New Mexico
July 13, 1967

United States Geological Survey Oil & Gas Division F. O. Box 959 Farmington, New Mexico

Attn: Mr. Phil McGrath

State of Arizona X O&G Conservation Comm. Room 202 - 1624 W. Adams Phoenix, Arizona 85007

Attn: Mr. John Bannister

Navajo Tribe Minerals Dept. 412 Petroleum Plaza Bldg. Farmington, New Mexico

Attn: Mr. Henry F. Pohlmann

RE: USGS Forms 9-331
Navajo Wells 1, 4, & 13
Dineh-bi-Keyah Field
Apache County, Arizona

Gentlemen:

Attached please find USGS Forms 9-331 for the above captioned wells. These wells are located in the Dineh-bi-Keyah Field in Apache County, Arizona.

Please keep this information confidential. Thank you.

Very truly yours KERD VCGEE CONTORATION

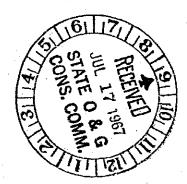
C. D. Williams Production Supt.

CDW/hs

cc: JIF WRF's RF

Enclosures

317



O

SCIENCES SERVICES

Mary series



KERR-MCGEE CORPORATION

xerr.mcgee Building · Oklahoma city. Oklahoma 73102
215 Petroleum Genter Building
Farmington, New Mexico
June 5, 1967

State Of Arizona Oil & Gas Conservation Comm. Room 202 - 1624 W. Adams St. Phoenix, Arizona

Attn: Mr. John Bannister, Executive Secr.

RE: 160 Acre Units Lower Hermosa Formation Dinah-bi-Keyah Field Apache County, Arizona

Gentlemen:

you a gage

As provided by Commission Order No. 21, oil wells in the lower Hermosa formation shall be on spacing units comprising a full governmental quarter section. Certain wells have already been permitted by Kerr-McGee Corporation with a dedicated area of only 80 acres. The quarter section allotted to each of the wells presently permitted is as follows:

,	WELL	PER	MIT NO.	QUARTER SECTION	
	(11313)				
	Navajo #1	_	377	SW/L Sec. 32 - 36N - 30E	
	Navajo #2)	379	NW/4 Sec. 32 - 36N - 30E	
	Navajo #3		386	SE/4 Sec. 32 - 36N - 30E	
	Navajo #		384	NE/4 Sec. 32 - 36N - 30E	
	Navajo #5	· 5·	392	SE/4 Sec. 31 - 36N - 30E	
	Navajo #6	-	390	NE/4 Sec. 31 - 36N - 30E	
	Navajo #	-	389	SW/4 Sec. 29 - 36N - 30E	
	Navajo #	•	391	SE/4 Sec. 29 - 36N - 30E	
	Navajo #		396	SE/4 Sec. 30 - 36N - 30E	
	Navajo #	•	399	NE/4 Sec. 29 - 36N - 30E	
A Section Comments	Navajo "		381	NW/4 Sec. 5 - 35N - 30E	
	Navajo	C" #j	397	SW/4 Sec. 33 - 36N - 30E	
المرودي يون	Navajo "	E" #1	398	SE/4 Sec. 20 - 36N - 30E	

Two wells, Navajo "E" #1 and Navajo "B" #2 have already been drilled and did not obtain oil production in the lower Hermosa so



Attn: Mr. J. Bannister

Page 2

June 5, 1967

these wells were not included. Also, Navajo #3 was not included since it was replaced by Navajo #3X.

If additional information is needed, please advise.

Sincerely yours, KERR-McGEE COMPORATION

C. D. Williams Prod. Supt.

CDW/hs

SOLIDARIO .

KERR-MCGEE

April 25, 1967

State of Arizon:

Oil and Gas Conservation Commission

Room 202, 1624 West Adams Pheonix, Arizona 85007

Attention Mr. John Beanister

Gentleman:

It is our request that all information on Froducing, Drilling, and Permitted wells operated by Kerr McGee Corporation in Dinah bi Rayah Field in Apache County Arizons be kept confidential.

The producing wells ore kerr-1cGee Novojo wells No.1, 2, 3X and 7. Well no. 7 has been put on pump but has not been potentialed because mechanical and transportation difficulties. Wells storted but not completed ore Kerr-McGee Novojo No.9 , Novojo No. B-1 and No. B-2.

hells that have been permitted but drilling operations have not actually started one our Navajo walks No.4, 5, 6,8 and 12, and havajo E-1 and C-1. Most of the road and location work has been completed on these locations.

Yours very truly, Kerr-McGee Corporation

Oil & Gos Froduction Division Supt.

Sunray, Texas.



KERR-MCGEE CORPORATION POST OFFICE BOX "K" - SUNRAY, TEXAS 79086

April 21, 1967

State of Arizona Oil and Gas Conservation Commission Room 202 1624 West Adams Phoenix, Arizona 85007

Attention: Mr. John Bannister,

Gentlemen:

Enclosed is one copy of Arizona Oil and Gas Conservation Commission Form No. 7, Reservoir Pressure Report, for the Hermosa Formation in the Dineh bi Keyah field. The fluid level was measured and the reservoir pressure calculated from the Kerr-McGee Corporation Navajo No. 1, located 660° FSL and 2000° FWL of Section 32, T36N, R30E, Apache County, Arizona.

Please keep this information confidential.

Yours very truly,

E.C. Beil

E. C. Reish, jr. Kerr-McGee Corporation

ECR: bb

Enclosure:



March 1, 1967

Oil and Gas Conservation Commission State of Arizona Room 202 1624 West Adams Phoenix, Arizona

Attention: Mr. John Bannister

Gentlemen:

Enclosed herewith is one copy of Arizona Oil and Gas Conservation Commission, Form No. 5, Well Status Report and Gas-Oil Ratio Tests for Kerr-McGee Corporation's Navajo No. 1 Well, Apache County, Arizona.

Otto C. Barton
Div. Supt. Oil & Gas Prod.

OCB:wm

CHIEFT IN

STREET



February 28, 1967

Oil and Gas Conservation Commission State of Arizona Room 202 1624 West Adams Phoenix, Arizona

Attention: Mr. John Bannister

Gentlemen:

Attached please find three copies of Arizona Oil and Gas Commission,
Form No. P-17, Operator's Certificate of Compliance & Authorization to
Transport Oil or Gas from Lease on Kerr-McGee Corporation's Navajo No. Fease #

1 Well. The Gatherer was changed from McWood Corporation to Permian (4-20-06)-8873
Corporation.

Yours very truly,

Otto C. Barton

Div. Supt. Oil & Gas Prod.

OCB:wm

COMMA COMMA

Approved copy netd 3.6.67

LEHWAREN



February 24, 1967

Oil and Gas Conservation Commission State of Arizona Room 202 1624 West Adams Phoenix, Arizona

Attention: Mr. John Bannister

Gentlemen:

Attached please find one copy of Arizona Oil and Gas Conservation Commission, Form No. 6, Potential Test & Request for Allowable for Oil Wells on Kerr-McGee Corporation's Navajo No. 1 wildcat discovery well located 2,000' FWL & 660' FSL Sec. 32,T36N, R30E, Apache County, Arizona.

I have sent copies of test to McWood Corporation in Farmington in order that their gauger who witnessed test can sign. The completed form with his signature will be forwarded to your office.

If there is anything else we can furnish on this well please let me know.

Yours very truly,

Otto C. Barton

Div. Supt. Oil & Gas Prod.

OCB:wm



RECEIVED
FEB 28 1967
STATE O & G
CONS. COMM.

O

ಪ್ರಭಾವತ ಪಡಿ



Kerr-McGee Corporation Kerr-McGee Bldg., Okla. City, Okla. Contact: Porter Wharton, Jr. Phone: CEntral 6-1313, Ext. 491

FOR IMMEDIATE RELEASE

OKLAHOMA CITY--Kerr-McGee Corporation today announced a new oil discovery on the Navajo Indian Reservation in Apache County, in the northeastern corner of Arizona.

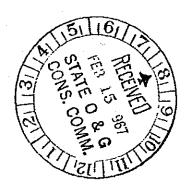
On a 10-hour swab test, Kerr-McGee's No. 1 Navajo well produced at the rate of 648 barrels of 42° gravity oil per day from perforations at 2,860 feet to 2,885 feet opposite a Pennsylvanian age reservoir.

The new discovery is located in the Chuska Mountains about 50 miles southwest of Farmington, New Mexico. Nearest production is located 15 miles east in the Tocito oil field of New Mexico. The Aneth oil field is located approximately 60 miles to the northwest.

Kerr-McGee owns leases on approximately 47,000 acres in the area.

###

KMPR 67-2 February 6, 1967 2, 3, 4, 6



February 7, 1967

Kerr-McGee Corporation P.O. Box K Sunray, Texas 79086

Attention: Mr. Otto K. Barton

Re: Kerr-McGee #1 Navajo SE SW 32-36N-30E Apache County, Arizona Permit 377

> Kerr-McGee #4A State SW NE 32-20N-26E Apache County, Arizona Permit 378

Gentlemen:

Enclosed is approved copy of Form 17, Operator's Certificate of Compliance and Authorization to Transport Oil or Gas From Lease, covering the #1 Navajo well.

Also enclosed are approved Application to Drill, Drilling Permit, and Receipt 9472, for the #4A State well.

Very truly yours,

John Bannister Executive Secretary mr enc

᠕ᠰ

February 1, 1967

Kerr-McGee Corporation P.O. Box K Sunray, Texas 79086

Attention: Mr. Otto C. Barton, Division Production Supt.

Re: Kerr-McGee #1 Navajo SE SW 32-36N-30E, Apache County, Arizona Permit 377

Gentlemen:

Enclosed are the necessary forms to be filed with this Commission to cover your current operations on captioned well. In addition, during our telephone conversation of this date you were advised to forward copies of reports made to U.S. Geological Survey.

I might point out to you that before any product can be transported from the lease form 8, Operators Certificate of Compliance and Authorization to Transport, must be approved by this Commission.

This has been very good news for the State of Arizona. Please be assured of our cooperation with you in every way we are able.

Very truly yours,

John Bannister
Executive Secretary
mr
enc: Form 4, 8, 6, 5

91[°]

*57518827



January 17, 1967

Oil and Gas Conservation Commission State of Arizona Pheonix, Arizona

Attn: Mr. John Bannister

Dear Mr. Bannister,

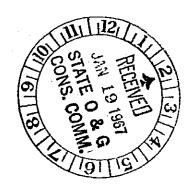
Attached please find Form #3 Application for Permit to Re-enter, Kerr-McGee's Navajo no: 1 well, located Section 32 - T36N - R30E Apache County, Arizona. Also attached please find draft in amount of \$25.00 covering filing fee for this permit. Please place one copy of approved permit in Draft Envelope and return one copy to this office. It is our request that all information regarding this well be Kept Confidential.

Yours truly,

Otto C. Barton

Division Production Supt.

0СВ:Ъъ



1-17-67

040 Barton, Kerr-Mc Gee, telephoned

Plan to re-enter # 1 Navajo Permet 303

Approx 1-19-67

Perforate from 2860 - 2885 \$ test.

Gave verbal permission & advised him to get in Applic to Re-enter him to get in Applic to Re-enter and \$2500 films fee as guickly and \$2500 films fee as guickly as possible